# ADF&G TECHNICAL DATA REPORT NO. 104 (Limited Distribution)

# STATE OF ALASKA Bill Sheffield, Governor



ABUNDANCE, AGE, SEX, AND SIZE OF COHO SALMON (Oncorhynchus kisutch Walbaum) CATCHES AND ESCAPEMENTS IN SOUTHEASTERN ALASKA, 1982

By: David C. Mesiar

January 1984

#### ADF&G TECHNICAL DATA REPORTS

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# ABUNDANCE, AGE, SEX, AND SIZE OF COHO SALMON (Oncorhynchus kisutch Walbaum) CATCHES AND ESCAPEMENTS IN SOUTHEASTERN ALASKA, 1982<sup>1</sup>

Ву

David C. Mesiar

Alaska Department of Fish and Game Division of Commercial Fisheries Statewide Stock Biology Group

January 1984

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#### **ABSTRACT**

Commercial fisheries in Southeastern Alaska, excluding the coastal waters of the Yakutat management area, harvested 1,947,496 coho salmon (Oncorhynchus kisutch Walbaum). The majority of this catch was taken in hand and power troll fisheries (66%) while the remainder was harvested in purse seine (23%), gillnet (10%), and trap fisheries (1%). Sport and subsistence catches totaled 50.627 and 420 fish respectively, and Canadian fisheries in two transboundary rivers harvested 15,971 coho salmon. The largest commercial catches were recorded in Districts 113 (460,050 fish), 104 (244,954 fish), and 114 (137,903 fish). The median week of gillnet catches was 29 August through 4 September, while that of purse seine and troll fishery catches was 8 August to 14 August. Age 1.1 and 2.1 fish predominated in all commercial catches. Gillnet catches in Districts 101 and 115 consisted primarily of age 1.1 fish, while gillnet catches from Districts 106, 108, and 111 were mainly composed of age 2.1 fish. Purse seine catches were dominated by age 1.1 fish, representing from 56.8 to 75.9% of the catches in the four purse seine areas (Districts 101-102, 104, 109-110, and 112-114). Age 2.1 fish appeared in purse seine catches in increasing proportions with increases in latitude of the catch district. Troll catches were also dominated by age 1.1 fish (48.6 to 67.0% of district totals). Southern district troll fishery catches were characterized by relatively larger percentages of age 1.1 fish that were northern districts. Average lengths of coho salmon were collected and cursorily examined for relationships with age class, area, and gear type. The average length of gillnet caught coho salmon was greater than that of purse seine and troll caught fish of the same age class, and troll caught fish from northern districts were of larger average length than troll caught fish from southern districts. Escapements of coho salmon to 15 Southeastern Alaska systems were sampled for age, size, and sex data. Age 1.1 fish dominated returns to Crystal Lake, Deer Mountain, and Snettisham hatcheries, and to Klakas, Warm Chuck, and McDonald Lakes. Age 2.1 fish were predominant in Ford Arm, Auke, Speel, Falls, and Hugh Smith Lakes. Male coho salmon outnumbered female coho salmon in six out of nine systems exhibiting departures from the expected 50/50 sex ratio. Migratory run timing data showed a great deal of variability and no consistent geographic trends.

KEY WORDS: catch allocation, migratory timing, age classification, coho salmon, *Oncorhynchus kisutch*, fishery synopsis

#### INTRODUCTION

The Southeastern Region (RegionI), excluding the Yakutat management area (Districts 182, 183, 185, and 192), includes coastal waters and inland drainages extending south from Cape Fairweather to Dixon Entrance. The region is divided into five management areas: Ketchikan, Petersburg, Sitka, Juneau, and Haines; and is further subdivided into 21 statistical areas, inside Districts 101 to 116 and outside Districts 152, 154, 157, 181, and 189, (Figure 1). Statistical areas are divided into numerically or alphabetically designated subareas which more accurately reflect discrete assemblages of salmon stocks.

Coho salmon (Oncorhynchus kisutch Walbaum) are an important resource in the Southeastern Region and are harvested in U.S. and Canadian commercial, sport, and subsistence fisheries. The commercial harvest is taken primarily with hand troll, power troll, purse seine, and gillnet gear. Additionally, a small, commercial floating-trap fishery is operated on the Annette Island Fishery Reserve. Commercial hand and power trolling is permitted in all Districts. Purse seine fisheries are allowed in Districts 101 to 105, 107, and 109 to 114. Additionally, a purse seine fishery operates some years (e.g., 1983) in District 106. The gillnet fishery is restricted to Districts 101, 106, 108, 111, and 115.

Historically, coho salmon have ranked third in numerical importance among the five commercially harvested salmon species. Annual Southeastern coho salmon catches from 1970 to 1982 averaged about 1.1 million fish. This compares with an average annual harvest of 1.8 million during a previous 30-year period from 1925 through 1954. Five-year average annual commercial coho salmon harvests show a steady increase since 1973. The 1982 commercial catch of coho salmon in the Southeastern Region was 1,947,496 fish; the highest since 1951.

Of the three primary gear types used in Southeastern Region commercial coho salmon fisheries, troll gear has historically taken the largest catches. A 13-year average of 63% of the total annual coho salmon commercial harvest was taken with troll gear, 21% was taken by purse seine, and 16% was taken with gillnets. Additionally, the Annette Island trap fishery harvests a small number of coho salmon each year (1970 to 1982 average harvest = 3,051 fish). The 1982 Southeastern commercial coho salmon catch was taken primarily by hand and power troll gear (66%), with purse seine and gillnet fishermen taking 23 and 10%, respectively. The remaining 1% of the catch was taken in the trap fishery.

Sport harvest of coho salmon occurs primarily near population centers such as Juneau, Sitka, Petersburg, and Ketchikan. Harvests have been substantial since 1977; the six-year average catch is 37,029 fish, and the 1982 harvest totaled 50,627. Sport caught coho salmon have accounted for an average 36% of all sport caught salmon landed within the Southeastern Region.

Subsistence harvest of coho salmon is not permitted in the Southeastern Region with two exceptions; fish may be taken from the Chilkat River near Klukwan and from Salt Lake in Kootznahoo Inlet near Angoon. Catches are tabulated from voluntarily returning subsistence harvest permits, which undoubtedly results in under-reporting of the catch. Reported subsistence catch has averaged 80 fish each year from 1970 to 1982. The reported 1982 harvest was 420 coho salmon.

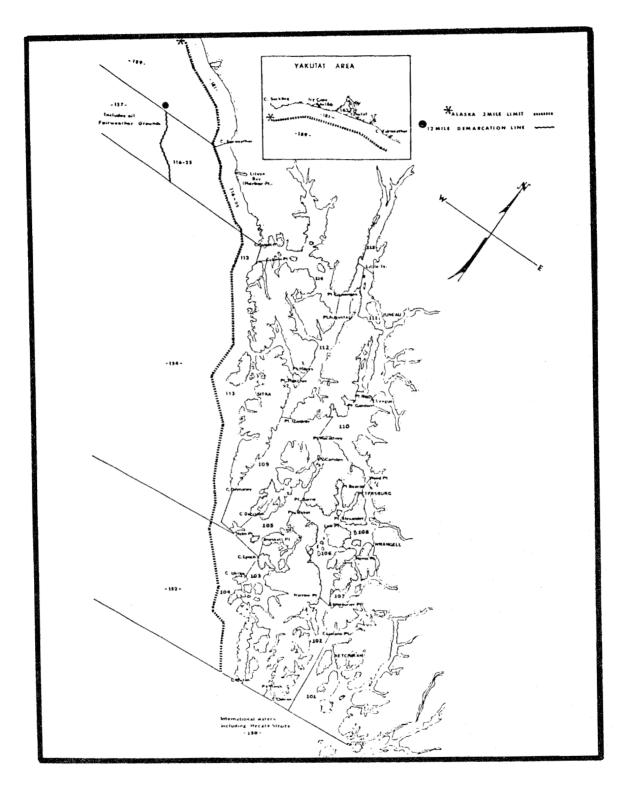


Figure 1. Map of Southeastern Alaska showing the statistical fishing districts.

Canadian commercial and subsistence fisheries occur on two transboundary rivers in Southeastern Alaska. The Stikine and Taku Rivers have supported directed commercial fisheries since 1979. Coho salmon have comprised an average of 30% and 8% of the total yearly commercial harvest of all species on the Stikine and Taku Rivers, respectively. The 1979 to 1982 average coho salmon catches on the Stikine and Taku Rivers are 11,417 and 4,018 fish. In addition to commercial harvest, Stikine River salmon stocks support a subsistence/food fishery. Coho salmon, however, have played a minor role in this fishery, annually contributing less than 1% of the total harvest.

The magnitudes of coho salmon escapements to Southeastern Region drainages in 1982 were assessed through weir counts and peak surveys. Weirs provided total escapement counts and permitted migratory timing analysis, while peak surveys provided indices of relative abundance for the surveyed areas. Escapement counts were obtained from 19 weired systems in 1982. However, only nine of those weirs were operated through the entire coho salmon migration. Over 900 escapement surveys were conducted in 1982 in order to determine peak escapements of all five species of salmon found in Southeastern Alaska.

The following report summarizes 1982 coho salmon catches and escapements in Southeastern Alaska. It presents total commercial coho salmon harvests by district, gear type, and statistical week. Samples of age, sex, and length are extrapolated to the total commercial catch resulting in estimates of the age, length, and in some cases, sex composition of commercial catches by district. In those drainages where escapements were sampled, estimates of age, sex, and size composition are expanded to total escapement counts. Migratory timing characteristics of 18 populations of coho salmon passing through weired systems are also described.

Summary tables of catches, escapements, and related age, size, and sex data are found within the text of this report. More detailed information is presented in the appendices. Because this document is intended to serve as a data base report, interpretation and discussion of the data are limited.

#### **METHODS**

#### Abundance Data

Commercial catch data used in this report were taken from a catch summary compiled by the Division of Commercial Fisheries, Alaska Department of Fish and Game (ADF&G). The summary was based on individual sales records (fish tickets), and was dated 2 May 1983. Later summaries may differ from those used in this report as lingering entry and recording errors are detected and corrected.

Canadian catch data for Stikine and Taku River commercial and subsistence fisheries was obtained from the Canadian Department of Fisheries and Oceans (Fast, personal communication). Sport fishery catch information was taken from a report by Mills (1983), and is based on response to the annual Sport Fish Division statewide harvest survey. Subsistence catch data was taken from permits returned to ADF&G (Imamura, personal communication) and from reports detailing subsistence activities at Salt Lake (George and Kookesh 1982) and at Klukwan (Mills 1982).

Escapement information was obtained from many sources. ADF&G and National Marine Fisheries Service (NMFS) personnel operated weirs and provided records of daily weir counts. Peak surveys were conducted aerially, on foot, and by boat. Aerial surveys were performed by ADF&G employees, while boat and foot surveys were completed by both ADF&G and NMFS personnel. Peak survey counts, total weir counts, and other information gathered during escapement surveys were recorded and made available in summary form. Additionally, three Southeastern hatcheries contributed data from coho salmon returns for inclusion in this report. Information regarding probable stock composition of sampled fisheries was obtained through personal communication with Leon Shaul, and from reports by Shaul et al. (1983) and Gray et al. (1978). Most of this information is also available in raw data form in ADF&G computer printouts of coded-wire tag recoveries in Southeastern Alaska and in Pacific Marine Fisheries Commission (PMFC) reports.

#### Age, Sex, and Length Data

Coho salmon from both catches and escapements were sampled for age, sex (when possible), and length. Scale samples were taken from the "preferred area" of the fish, located on the left side, two rows above the lateral line, and on the diagonal row downward from the posterior insertion of the dorsal fin (INPFC 1963). Scales were placed on gummed cards and impressions were made in cellulose acetate (Clutter and Whitesel 1956). Ages are reported in European notation. Lengths were taken from mideye to fork of tail and were recorded to the nearest millimeter. Sex determination of coho salmon sampled from catches was generally not possible as secondary sexual characters had not developed and examination of gonads was not possible. For escapement samples, sex was determined through examination of external secondary sexual characteristics (appearance of snout, belly, and adipose fin) or gonads. A degree of error is expected in determining the sex of escapement samples, especially early in the migration period before males and females become distinctly different in appearance. Subsistence, sport, and trap fisheries were not sampled because of the difficulty of obtaining samples and the comparatively small number of fish caught.

Age and, where possible, sex composition estimates were generated for each fishery sampled. In those fisheries where a sufficient number of data points were obtained, the data were stratified over time into sampling periods. A sampling period is defined by a minimum sample size of 454 ageable scales. This sample size permits estimation of age composition based on three age groups and a desire to maintain a one in ten chance that the estimate falls outside of  $\pm 5\%$  of the true value (Cochran 1977). The number of age groups was defined as the number of age groups comprising at least 90% of the sample plus one. That is, all age groups in the remaining 10% of the sample were pooled into an "other" category. In many cases, the total number of ageable scales was less than 454. Age compositions are presented for these groups, but no level of accuracy can be attached to the values.

Small sample sizes collected from 1982 catches mandated expansion to period catches rather than to statistical week catches. The result is a more biased estimate of total commercial catch age and sex composition than would result if expansion to weekly catches were possible. In many cases, samples from more than one district were combined in order to obtain minimum sample sizes. Combination

of districts was based on proximity of the districts and, to some degree, similarity of stock composition based on previously completed tagging studies (Shaul et al. 1983).

For each sample period, catches and escapements were allocated by age class and sex. Where more than one period existed, period totals were added to represent the season's age and sex composition for that fishery or escapement.

Mean length and 95% confidence limits were calculated for each district (or stock) and gear type by age and sex.

The mean and variance of the migratory time density function (Mundy 1979) of coho salmon observed passing through weirs were calculated.

#### RESULTS

#### Harvest Data

A total of 1,947,496 coho salmon was commercially harvested in 1982 (Table 1). The 1982 harvest was the largest annual commercial catch since 1951. Approximately 95% of the catch was taken between 4 July and 18 September. Catches peaked at 350,198 fish during the week of 8 August through 14 August, the week immediately following a 10-day troll fishery closure. District 113 fisheries harvested the largest proportion (24%) of the catch, taking 460,050 fish. Large catches were also recorded in Districts 104 (13% of the total) and 101 (11% of the total). Catches in the 18 remaining statistical areas ranged from 3,251 fish (<1% of the total) in District 107 to 137,903 fish (7% of the total) in District 114.

#### Gillnet Catch:

Gillnet fisheries accounted for 201,519 coho salmon which represented 10% of the Region's catch (Table 2). The largest gillnet catch (72,208) was taken in District 115. This represented 36% of the gillnet coho salmon harvest. The District 115 fishery harvests primarily Lynn Canal stocks, while fish returning to Stephens Passage systems are harvested to some extent in lower Lynn Canal, District 115-10 (Shaul and Gray 1983). Three major stocks are harvested including those from Chilkoot and Chilkat Lakes and Berners River systems. In 1982, the majority of coho salmon harvested along the shoreline north of Berners Bay were Berners River fish, while those caught south of Berners Bay were of more mixed stock composition (Shaul and Gray 1983).

The District 101 gillnet fishery harvested 35,013 coho salmon with peak catches recorded from 29 August through 4 September. Catches are comprised of highly mixed stocks, primarily from systems in Districts 101 and 102, northern British Columbia, and hatcheries near Ketchikan. Evidence obtained from preliminary analyses of tagging research indicates that catches of local hatchery stocks peak in early September, while fish destined for northern British Columbia rivers may be intercepted to a greater extent earlier in the season (Shaul et al. 1983).

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Table 1. Total commercial harvest of coho salmon in Southeastern Alaska by district and week, 1982.

r 1		District											
Inclusive Dates	111	112	113	114	115	116	154	157	181	189	Southeastern Total		
Unspecified	0	7	0	13	20 <sup>2</sup>	0	0	0	0	0	34		
May 30-June 5	0	0	0	0	0	0	0	0	0	0	0		
June 6-June 12	0	0	0	0	0	0	0	0	0	0	0		
June 13-June 19	0	14	272	81	14	33	4	0	0	0	418		
June 20-June 26	153	32	3,186	464	64	334	231	66	13	3	4,546		
June 26-July 3	164	149	3,777	406	23	80	108	81	6	2	4,796		
July 4-July 10	215	270	19,568	1,437	729	379	1,118	33	5	29	23,783		
July 11-July 17	756	2,0211	80,360	2,802	159	6,168	2,053	950	206	64	95,539		
July 18-July 24	1,232	2,918	81,570	6,481	444	5,637	6,989	83	0	419	105,773		
July 25-July 31	952	4,152	50,948	3,189	497	8,464	1,734	2,035	408	1,916	74,295		
Aug 1-Aug 7	2,322	11,645	21	0	537	0	0	0	0	0	14,525		
Aug 8-Aug 14	4,167	17,160	68,992	34,583	1,691	16,691	1,963	3,666	1,543	0	150,456		
Aug 15-Aug 21	4,723	19,553	78,522	31,193	3,526	23,637	1,190	2,233	5,830	1,175	171,582		
Aug 22-Aug 28	3,925	13,541	45,190	19,9093	5,172	14,755	1,477	1,875	9,312	0	115,156		
Aug 29-Sept 4	3,811	8,949	17,217	14,863	5,645	13,207	359	378	15,198	1,641	81,268		
Sept 5-Sept 11	4,984	1,360	4,863	9,906	8,129	5,277	1,171	56	9,725	823	46,294		
Sept 12-Sept 18	6,203	1,113	3,296	8,706	13,320	2,683	25	0	60	0	35,406		
Sept 19-Sept 25	0	228	2,268	3,870	17,526	692	0	0	1,563	0	26,147		
Sept 26-Oct 2	0	0	0	0	11,925	0	0	0	0	0	11,925		
Oct 3-Oct 9	0	0	0	0	3,7124	5 0	0	0	0	0	3,712		
Oct 10-Oct 16	0	0	0	0	682	Ō	0	0	0	0	682		
Oct 17-Oct 23	0	0	0	0	79	0	0	0	0	0	79		
Total	33,607	83,106	460,050	137,903	73,894	98,037	18,422	11,456	43,869	6,072	966,416		

-Continued-

Table 1. Total commercial harvest of coho salmon in Southeastern Alaska by district and week, 1982 (continued).

		Southern Southeastern	Total										
Inclusive Dates	101	102	103	104	105	106	107	108	109	110	152	Total	Southeastern
Unspecified	1	0	0	. 0	0	. 0	0	0	0	0	0	1	35
May 30-June 5	'n	ő	ŏ	Ö	Ō	0	0	0	0	0	0	0	0
June 6-June 12	n	Õ	Ō	23	0	0	0	0	0	0	0	23	23
June 13-June 19	346	22	53	399	27	88	0	210	192	10	208	1,555	1,973
June 13-June 19	3,247	5,018	1,661	2,859	324	1,248	0	4	707	189	464	15,721	20,267
June 27-July 3	2,801	7,920	4,206	4,296	325	2,338	4	15	1,612	102	550	24,169	28,965
July 4-July 10	4,340	3,160	3,519	21,850	963	2,543	17	23	4,265	305	1,244	42,229	66,012
	18,612	9,600	9,430	37,871	2,481	2,539	17	0	5,908	252	6,756	93,466	189,005
uly 11-July 17	15,057	15,480	7,817	24,371	2,530	4,250	53	0	9,799	845	7,202	87,404	193,177
July 18-July 24	23,189	8,253	5,015	12,860	2,699	3,720	226	0	6,953	1,482	5,495	69,892	144,187
July 25-July 31	7,636	5,921	0,019	12,039	0	0	0	0	8,846	5,541	0	39,983	54,508
Aug 1-Aug 7	23,4876	19,114	7,824	58,890	7,984	6,737	0	1,631	43,857	19,913	10,305	199,742	350,198
Aug 8-Aug 14	38,296	19,747	7,737	27,064	6,398	7,277	1,415	1,625	19,887	11,193	3,795	144,434	316,016
Aug 15-Aug 21	26,173	17,237	10,513	23,877	3,940	15,915	484	3,711	8,617	1,308	1,489	113,264	228,420
Aug 22-Aug 28	31,201	5,860	6,161	16,028	2,412	13,379	412	6,379	4,8239	41	351	87,047	168,315
Aug 29-Sept 4	14,736	2,077	2,207	1,941	512	5,822	482	5,074	1,771	309	0	34,931	81,225
Sept 5-Sept 11	6,870	1,153	2,207	0	113	3,449	129	2,044	755	305	0	14,818	50,790
Sept 2-Sept 18		96	n	566	0	989	12	0	138	0	0	7,304	32,905
Sept 19-Sept 25	5,503	1,290	0	20	ñ	432	0	0	0	0	0	2,648	14,553
Sept 26-Oct 2	906 386 <sup>7</sup>	1,822	0	0	Õ	0	Õ	Ō	0	0	0	2,208	5,920
oct 3-0ct 9	240 <sup>±</sup>	1,022	0	0	n	ñ	Õ	0	0	0	0	241	923
Oct 10-Oct 16		Ó	0	0	ñ	Õ	Ŏ	Ö	. 0	0	0	0	79
Oct 17-Oct 23	0	<u> </u>				-							
Total	223,027	123,771	66,143	244,954	30,708	70,726	3,251	20,716	118,130	41,795	37,859	981,080	1,947,496

Includes 3 coho salmon harvested with unspecified gear type.

Harvested with unspecified gear type.

Harvested with unspecified gear type.

Includes 8 coho salmon incorrectly reported as trap harvest.

Includes 23 coho salmon incorrectly reported as trap harvest.

Includes 20 coho salmon incorrectly reported as purse seine harvest.

Includes 6 coho salmon harvested with unspecified gear type.

Dipnet harvest.

<sup>8</sup> Includes 134 coho salmon taken with dipnets.

Includes 9 coho salmon harvested with unspecified gear type.

Table 2. Total gillnet harvest of coho salmon in Southeastern Alaska, by district, 1982.

To all controls	<del></del>		District			
Inclusive — Dates	101	106	108	111	115	Total
Unspecified	1	-	_		_	1
June 13-June 19	307	88	2		14	411
June 20-June 26	912	1,061	4	87	62	2,126
June 27-July 3	1,701	2,311	3	147	14	4,176
July 4-July 10	1,200	2,447	23	215	699	4,584
July 11-July 17	2 <b>,7</b> 38	2,066	-	697	87	5,588
July 18-July 24	2,733	3,456	-	1,201	211	7,601
July 25-July 31	1,724	1,932	-	771	349	4,776
Aug 1-Aug 7	3,237	-	-	1,081	537	4,855
Aug 8-Aug 14	3,635	-	1,628	2,171	1,393	8 <b>,</b> 827
Aug 15-Aug 21	3,344	1,128	1,591	3 <b>,</b> 779	3,196	13,038
Aug 22-Aug 28	3,005	10,746	3,646	3,925	5,007	26,329
Aug 29-Sept 4	5,652	11,151	6,279	3,811	5,523	32,416
Sept 5-Sept 11	3,500	4,970	5,051	4,984	7,936	26 . 441
Sept 12-Sept 18	1,193	2,685	2,034	6,203	13,320	25,435
Sept 19-Sept 25	25	492		-	17,524	18,041
Sept 26-Oct 2	_	432	-	-	11,925	12,357
Oct 3-Oct 9		_	-		3,650	3,650
Oct 10-Oct 16	106	-	una.	-	682	788
Oct 17-Oct 23		_	-	_	79 	79
Total	35,013	44,965	20,261	29,072	72,208	201,519

A total of 44,965 coho salmon was harvested in the District 106 gillnet fishery. Catches peaked during the week of 29 August through 4 September. Stocks thought to be intercepted in this fishery originate primarily from the Stikine River. Clarence Strait systems, and Crystal Lake hatchery (Shaul et al. 1983).

District 108 gillnet catches totaled 20,261 fish, the lowest of the five gillnet districts. Catches peaked during the week of 29 August through 4 September, as occurred in Districts 101 and 106. Fish from the Stikine River and Crystal Lake hatchery are two major components of the catch (Shaul et al. 1983).

District 111 gillnet fisheries harvested 29,072 coho salmon. Catches peaked in mid-September just prior to closure of the fishery on 14 September. Major stocks harvested in the fishery include those from the Taku River, Port Snettisham (Crescent Lake, Speel Lake, and Snettisham hatchery), and other small Stephens Passage systems. Taku River stocks are apparently harvested at a higher rate in the gillnet fishery than are Port Snettisham stocks (Shaul et al. 1983).

#### Purse Seine Catch:

The 1982 purse seine fisheries harvest of 452,050 coho salmon represented 23% of the region's catch (Table 3). Most (96%) of the catch was taken between 4 July and 4 September. The harvest of 153,565 in District 104 was 34% of the coho salmon taken by the seine fleet. The District 104 fisheries harvest extremely mixed stocks including fish from systems in northern Southeastern Alaska south to southern British Columbia. Primary stocks harvested are those from District 103, Clarence Strait, and northern British Columbia. High contributions by northern British Columbia stocks are thought to occur in District 104 catches early in the season while fish from local Southeastern Alaska stocks probably dominate later on (Shaul, pers. comm.).

The District 101 and 102 purse seine harvests totaled 86,876 and 55,438 coho salmon, respectively, and were the second and fourth largest catches in the region. Peak catches occurred during the week of 29 August to 4 September in District 101, and between 8 August and 14 August in District 102. Stocks harvested are primarily local and Canadian, depending on catch location (Shaul, pers. comm.).

The District 103 purse seine harvest was 18,621; catches peaked between 22 and 28 August. Results of tagging by Noerenberg and Tyler (1971) indicated dominance of local stocks in the catch.

The District 109 harvest was 26,225 coho salmon; catches peaked between 8 August and 14 August. Stocks harvested in this fishery are highly mixed, originating from areas of northern Southeastern Alaska south to southern British Columbia (Shaul, per. comm.). District 110 catches totaled 35,833 coho salmon; catches peaked between 8 and 14 August. Stocks harvested in District 110 probably originate primarily in the Stikine River, Crystal Lake hatchery, and Stephens Passage systems (Shaul, pers. comm.).

District 112 and 114 purse seine fisheries harvested coho salmon stocks from Stephens Passage, Chatham Strait, and Lynn Canal. District 112 catches totaled 62,141 fish, the third largest District total in the Region. Peak catches

Table 3. Total purse seine harvest of coho salmon in Southeastern Alaska, by district, 1982.

-	District												
Inclusive - Dates	101	102	103	104	105	107	109	110	111	112	113	114	Total
June 6-June 12	-	_	_	23				<del></del>			_	_	23
June 13-June 19	-		-	-	-	-	-	-	_	-	-	_	-
June 20-June 26			_	-	_	-	-	-	-	_	-	-	-
June 27-July 3	_	_	-	223	_	-	-	-		-	_	-	223
July 4-July 10	1,378	-	-	16,904	-	-		_	-	-	-	_	18,282
July 11-July 17	6.651	3,203	-	25,759	_		-	-		201	_	-	35,814
July 18-July 24	4,088	4,874	-	10,043	-	-	-	<u>~</u>	-	1.015	7	_	20,027
July 25-July 31	1.573	2,751	_	2,419	-		-	-	-	3,017	_	_	9,760
Aug 1-Aug 7	4,016	5,921	-	12,039	-	-	8,797	5,541	1,241	11,637	21	_	49,213
Aug 8-Aug 14	11.209	11,199	277	32,346	_	_	10,916	19,538	319	11,551	656	-	98,011
Aug 15-Aug 21	13.678	10,946	3,026	16,846	-	1,415	2,445	9,850	93	16.037	410		74,746
Aug 22-Aug 28	13,621	10,372	8,224	19,994	_	-	1,731	904	-	11,040	2,177	2,889	70,952
Aug 29-Sept 4	20,577	2,411	5,141	15,171	805	-	1,995	_	_	7.304	1.162	2,156	56,722
Sept 5-Sept 11	8,862	648	1,953	1,778	-	-	341	-	_	339	_		13,921
Sept 12-Sept 18	258	-	_	-	-	-		_			-	-	258
Sept 19-Sept 25	59	_		-	_	-	_	_		_	_	-	59
Sept 26-Oct 2	906	1,290		20	_	-	_	_	-		_	-	2,216
Oct 3-Oct 9	_	1,822	_	_	-	_	_	-	-	, <del>-</del>	_	-	1.822
Oct 10-Oct 16	-	1	_	-	-	-	-	-	-		-	-	1
Total	86,876	55,438	18,621	153.565	805	1.415	26,225	35,833	1,653	62,141	4,433	5,045	452,050

occurred between 15 August and 21 August. District 114 catches were relatively minor, totaling 5,045 fish taken in 2 weeks of fishing.

Harvests of coho salmon in Districts 105, 107, 111, and 113 were incidental to directed pink salmon fisheries; the combined harvest from these districts was 7,806. Little is known of the stock composition of District 105 catches but important contributing stocks are thought to originate in the Stikine River, Sumner Strait, and Clarence Strait. Fish harvested in District 113 originate from various areas ranging from northern Southeastern Alaska to southern British Columbia. Stock composition of District 111 purse seine catches is approximately the same as for gillnet harvests detailed previously, and District 107 fisheries harvest mainly southern and central area stocks (Shaul, pers. comm.).

#### Hand and Power Troll Catch:

The Southeastern troll fishery was open from 15 June through 20 September, except for a 10-day period between 29 July and 7 August. The hand and power troll catch of coho salmon was 1,288,742 fish (Table 4), which represented 66% of the region's harvest. The largest weekly catch (243,741 fish) was recorded between 8 and 14 August. Most (93%) of the catch was taken between 4 July and 11 September. The District 113 catch of 455,617 was the largest district harvest and comprised 35% of the total troll harvest. Stocks harvested in Districts 113 and 154 (outside waters adjacent to District 113) are highly mixed and originate in streams from northern Southeastern Alaska to southern British Columbia (Shaul et al. 1983).

The District 114 troll catch was 132,850 fish; the second largest District troll harvest in the Region. Fish harvested in District 114 and the more southerly District 112 originate predominantly from Stephens Passage, Lynn Canal, and Chatham Strait (Shaul et al. 1983). Fish harvested in the Cross Sound portion, however, are highly mixed and come from areas south from northern Southeastern Alaska to southern British Columbia. Findings by Gray et al. (1978) show that the contribution to fisheries in Districts 112 and 114 by lower Taku River stocks peaked during the second half of August while the Chilkat River and Berners River stocks peaked later during the first half of September.

The District 116 catch was 98,037; most fish were caught between 15 August and 21 August. Fish from Districts 116 and 157 (outside waters adjacent to District 116) are also highly mixed early in the season with stocks from Yakutat south to southern British Columbia represented in the catch. As the season progresses, northern (Yakutat, Lynn Canal, and Stephens Passage) stocks become increasingly dominant (Shaul, pers. comm.).

Districts 101 and 102 catches were 96,036 and 68,333 fish, respectively. Catches are thought to be characterized by high Canadian contribution early in the season and at more southerly locations. Fish caught later in the season and/or farther north within the District probably originate locally (Shaul, pers. comm.).

Districts 103, 104, and 152 yielded harvests of 47,522, 91,389, and 37,859 fish, respectively. Catches are characteristically composed of fish from systems in central Southeastern Alaska south to northern British Columbia. Early offshore catches probably exhibit higher percentage contribution of Canadian stocks, while

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Table 4. Total hand and power troll harvest of coho salmon in Southeastern Alaska, by district, 1982.

	District											
Inclusive - Dates	111	112	113	114	115	116	154	157	181	189	Southeaster Total	
Unspecified	_	1	-	13	_		-	-	_	_	14	
June 6-June 12	_	-	-	-	_	-	-	-	-	-		
June 13-June 19	-	14	27.2	81	_	33	4	***	_		404	
June 20-June 26	66	32	3,186	464	2	334	231	66	13	3	4,397	
June 27-July 3	17	149	3.777	406	9	80	108	81	6	2	4,635	
July 4-July 10	-	270	19,568	1,437	30	379	1,118	33	5	29	22,869	
July 11-July 17	59	1,817	80,360	2,802	72	6,168	2,053	950	206	64	94,551	
July 18-July 24	31	1,903	81.563	6,481	233	5,637	6,989	83	_	419	103,339	
July 25-July 31	181	1,135	50,948	3,189	148	8,464	1,734	2,035	408	1,916	70,158	
Aug 1-Aug 7		8	· _	_	-	-		-	-	-	8	
Aug 8-Aug 14	1.677	5,609	68,336	34,583	298	16,691	1,963	3,666	1.543	_	134,366	
Aug 15-Aug 21	851	3,516	78,112	31,193	330	23,637	1,190	2,233	5,830	1,175	148,067	
Aug 22-Aug 28		2,501	43,013	17,012	165	14,755	1,477	1,875	9,312	-	90.110	
Aug 29-Sept 4	-	1,645	16,055	12,707	122	13,207	359	378	15,198	1.641	61,312	
Sept 5-Sept 11	_	1,021	4,863	9,906	193	5,277	1,171	56	9,725	823	33,035	
Sept 12-Sept 18	-	1,113	3,296	8,706		2,683	25	_	60	_	15,883	
Sept 19-Sept 25	_	228	2,268	3,870	2	692	_	_	1,563	-	8,623	
Sept 26-Oct 2	_		_	_	-	-	-	-	-		_	
Oct 3-Oct 9	-	-	-	-	19	-	-			<del>-</del>	19	
Total	2,882	20,962	455,617	132,850	1,623	98,037	18,422	11,456	43,869	6.072	791,790	

-Continued-

Table 4. Total hand and power troll harvest of coho salmon in Southeastern Alaska, by district, 1982 (continued).

T==1							Southern						
Inclusive - Dates	101	102	103	104	105	106	107	108	109	110	152	Southeaste Total	
Unspecified	<u></u>	_	_	_	-	_	-	-	_	_	_		14
June 6-June 12	-	_	-		-	-	-	-	-	10		: 10	10
June 13-June 19	39	22	53	399	27	-	-	208	192	189	208	1.337	1.741
June 20-June 26	2,335	5,018	1,661	2,859	324	187	-	_	707	102	46 4	13,657	18,054
June 27-July 3	9 40	7,920	4,206	4,073	325	27	4	12	1.612	305	550	19,974	24,609
July 4-July 10	999	3,160	3,519	4,946	963	96	17	-	4,265	252	1.244	19,461	42,330
July 11-July 17	8,896	6,397	9,430	12,112	2,481	473	17	-	5,908	845	6.756	53.315	147.866
July 18-July 24	7,931	10,606	7,817	14,328	2,530	794	53	_	9,799	1,482	7,202	62,542	165,881
July 25-July 31	19,344	5,502	5,015	10,441	2,699	1,788	226	_	6,953	-	5,495	57.463	127.621
Aug 1-Aug 7	15	_	-	-	-	-	-	-	49	375	_	439	447
Aug 8-Aug 14	8,056	7,915	7,547	26.544	7,984	6.737	_	3	32,941	1.343	10,305	109,375	243.741
Aug 15-Aug 21	20,855	8,801	4,711	10,218	6,398	6.149	_	34	17.442	404	3,795	78,807	226,874
Aug 22-Aug 28	9,156	6.865	2,289	3,883	3,940	5,169	484	65	6,886	41	1,489	40,267	130,377
Aug 29-Sept 4	4,567	3,449	1,020	857	1,607	2,228	41 2	100	2,819	309	351	17,719	79,031
Sept 5-Sept 11	2,065	1,429	254	163	512	852	482	23	1.430	305	_	7,515	40,550
Sept 12-Sept 18	5,419	1,153		_	113	764	129	10	755	_		8,343	24,226
Sept 19-Sept 25	5,419	96	_	566	_	497	12	-	138	_	_	6.728	15,351
Sept 26-Oct 2	_	_	-	-	_	_	_	-	-	_	_	-	• -
Oct 3-Oct 9	-	-	-	-	-	-	-	-	-	. <del>-</del>	-	-	19
Total	96.036	68,333	47,522	91,389	29,903	25,761	1,836	455	91,896	5,962	37.859	496,952	1.288,742

local Southeastern Alaska stocks are increasingly important farther inshore and later in the season (Noerenberg and Tyler 1971; Shaul et al. 1983).

The harvest of coho salmon in Districts 105 and 106 was 29,903 and 25,761 fish, respectively. Catches in both Districts were highest between 8 and 14 August. Probable stock composition is the same as described for seine and gillnet fisheries in these districts (Shaul et al. 1983).

The District 109 troll harvest totaled 91,896 coho salmon. Catches peaked during the week of 8 August to 14 August. Stock composition has been detailed previously (Shaul, pers. comm.).

Catches of coho salmon in Districts 107, 108, 111, and 115 were minor in 1982. Probable stock composition is the same as discussed for gillnet fisheries in Districts 108, 111, and 115, and for purse seine fisheries in Districts 107 (Shaul et al. 1983).

Trap, Sport, and Subsistence Catch:

Fish traps operating on Annette Island (District 101) harvested 4,576 coho salmon (Table 5). Traps were fished from late June through mid-September and peak catches were recorded from late July through mid-August.

The 1982 estimated sport fish harvest of coho salmon in Southeastern was 50,627 fish (Table 6). Nearly 50% of the catch was taken in the Juneau area.

The reported subsistence catch of 420 fish (Table 7) underestimated the actual harvest because many permits were not returned.

Canadian Transboundary River Catch:

Canadian gillnet fisheries in the Stikine and Taku Rivers harvested a significant number of coho salmon in 1982 (Table 8). A total of 15,920 coho salmon were harvested in Stikine River commercial and subsistence fisheries, while only 51 coho salmon were harvested in the Taku River. Stikine River catches peaked between 29 August and 4 September.

Age Composition and Size Information:

Age and size statistics were computed for each fishery and escapement sampled. The data are presented below by gear type and district.

<u>Gillnet</u>. Age composition of coho salmon in Southeastern Alaska and Canadian transboundary river gillnet fisheries is presented in Table 9. Age 1.1 and  $2.1^1$  fish were the dominant age classes, representing from 96.3 to 100% of the commercial catches. Age 2.1 fish predominated in Districts 106, 108, and 111 harvests and

European Notation - Numerals preceding the decimal refer to number of freshwater annuli; numerals following the decimal are the numbers of marine annuli. Total age is the sum of these two numbers plus one.

Table 5. Total trap harvest of coho salmon in Southeastern Alaska, by district, 1982.

Inclusive Dates	District 101
June 27-July 3 July 4-July 10 July 11-July 17 July 18-July 24 July 25-July 31 Aug 1-Aug 7 Aug 8-Aug 14 Aug 15-Aug 21 Aug 22-Aug 28 Aug 29-Sept 4 Sept 5-Sept 11	160 763 327 305 548 368 581 419 391 405 309
Total	4,576

Table 6. Total estimated sport fish harvest of coho salmon in Southeastern Alaska, by area, 1982.

Area	Catch	
Ketchikan Prince of Wales Island Petersburg-Wrangell Juneau Glacier Bay Sitka Haines-Skagway	11.442 4,125 3,051 25,015 1,163 3,887 1,944	
TOTAL	50,627	

Table 7. Total reported subsistence harvest of coho salmon by system in Southeastern Alaska, 1982¹.

Location Code	System	Numbers Reported
112- 115-	Salt Lake Klukwan	418

These numbers are taken from subsistence permits returned to ADF&G. Actual subsistence harvests were undoubtedly higher than these totals.

Table 8. Canadian harvest of coho salmon from transboundary rivers, 1982.

Inclusive Dates	Lower Stikine <sup>1</sup>	Upper Stikine <sup>2</sup>	Taku <sup>3</sup>	Total
July 4-July 10	2	0	0	2
July 11-July 17	3	0	0	3
July 18-July 24	10	4	0	14
July 25-July 31	43	6	51	100
Aug 1-Aug 7	135	6	0	141
Aug 8-Aug 14	288	0	0	288
Aug 15-Aug 21	1,506	0	0	1,506
Aug 22-Aug 28	1,677	0	0	1,677
Aug 29-Sept 4	3,034	0	0	3,034
Sept 5-Sept 11	2,421	0	0	2,421
Sept 12-Sept 18	2,586	0	0	2 <b>,</b> 586
Sept 19-Sept 25	1,693	0	0	1,693
Sept 26-Oct 2	1,917	0	0	1,917
Oct 3-Oct 9	589	0	0	589
Total	15,904	16	51	15,971

Commercial gillnet fishery

<sup>&</sup>lt;sup>2</sup> Subsistence fishery

<sup>&</sup>lt;sup>3</sup> Commercial gillnet fishery

Table 9. Summary table of the percentage age composition of coho salmon in the commercial gillnet harvest in Southeastern Alaska and the Stikine River in western British Columbia, 1982¹.

ana and an amaken time garget and time time time time.	BROOD YEAR A					CLASS	
		<b>.</b>	197	9	1978	197	7
District	Sample Size	Total Catch	1.1	2.0	2.1	2.2	3.1
101 106 108 111 115 108(Stikine)		35,013 44,965 20,261 29,072 72,208 15,920	83.64 35.57 37.67 42.32 52.70 48.20	0.00 0.00 0.00 0.00 0.12 0.00	16.36 61.07 58.61 55.12 46.93 50.70	0.00 0.00 0.00 0.00 0.12 0.00	0.00 3.36 3.72 2.56 0.12 1.10

 $<sup>^{\</sup>mathrm{1}}$  The Canadian commercial gillnet harvest in the Taku River was not sampled.

comprised from 50.7% of the total Stikine River Canadian catch to 61.1% of the total District 106 catch. Age 1.1 fish predominated in the catches from Districts 101 (83.6%) and 115 (52.7%). Three other age classes (2.0, 2.2, and 3.1) were represented in samples obtained from gillnet fisheries (see Appendix Tables 1 through 6). The small number of samples taken in Districts 101, 106, and 108 did not permit accurate estimation of age composition. Therefore, care must be taken when interpreting these data.

Visual inspection of length data (Table 10) by district, age, and sex revealed no obvious geographic trends, except that District 115 fish were slightly larger than fish of the same age class from other districts.

Purse Seine. The Southeastern Alaska commercial purse seine coho salmon catch was dominated (56.9 to 75.9%) by age 1.1 fish (Table 11). The incidence of age 2.1 fish increased moving south to north. Small percentages of two other age classes (2.0 and 3.1) appeared in the catches. Detailed age composition data for each fishery sampled are presented by area and period in Appendix Tables 7 through 10. Once again, sample sizes in all areas were too small to allow estimation of age composition at the desired level of accuracy and care should be taken when interpreting the data. Fish caught in purse seine fisheries were, on the average, smaller than gillnet caught coho salmon of the same age class (Tables 11 and 12). No distinct interdistrict trends were apparent.

Hand and Power Troll. The hand and power troll fishery catch of coho salmon in Southeastern Alaska was dominated by age 1.1 fish (Tables 13 and Appendix Tables 11-16). The proportion of age 1.1 fish in six areas of the Region ranged from 48.7% in District 114 to 67.0% in combined Districts 101 and 102. Southern district troll fishery catches were characterized by relatively larger percentages of age 1.1 than were northern district catches. Age 2.1 fish comprise a larger proportion of northern than southern district harvests. Small numbers of age 3.1 fish were observed in all districts sampled.

Mean lengths and 95% confidence limits for troll caught coho salmon are summarized in Table 14. Fish caught in northern areas are relatively larger than fish of the same age class from southern districts.

#### Escapement Data

Southeastern Alaskan coho salmon escapements were surveyed to obtain estimates of abundance, run timing, age, size, and sex composition. These data are presented in the following sections.

#### Abundance Estimates:

Coho salmon escapement counts from 117 runs of 25 or more fish are listed in Table 15. Although only peak survey counts were available for most runs, these data may be useful for interdrainage and interannual comparisons. Large escapements were reported at Crystal Lake hatchery (10,815 fish) and at Berners River (9,000 fish sighted in an aerial survey and 7,505 fish counted during a foot survey). Weired systems receiving large escapements included Sarkar River (4,976 fish), Karta River (3,972 fish), Klawock River (3,309 fish), and Hugh Smith Lake (2,404 fish). Escapement counts made at other weired systems ranged from 124 coho salmon at Salmon Bay Lake (partial count) to 2,105 at Ford Arm Lake.

Table 10. Mean length ( $\pm$  95% C.I. in mm) by age class of coho salmon from gillnet harvests in Southeastern Alaska, 1982 $^{1}$ .

			BROOD YEAR AND AGE CLASS						
		19	79	1978	19	77			
District		1.1	2.0	2.1	2.2	3.1			
101	95% C.I. n	604.6 14.7 46	an dan jun jun dan dan dan dan dan dan d	641.0 22.8 9					
106	x 95% C.I. n	614.9 8.3 106		607.8 5.8 182		598.8 21.2 10			
108	x 95% C.I. n	628.4 10.1 81	delegam den delegalegen der verm den Verd	617.1 7.9 126	gain ghini dhini tima tima tima kina tima tima tima tima tima tima tima tim	611.8 22.3 8			
111	x 95% C.I. n	604.5 7.8 215		619.5 6.5 280	gant gant gant gant bay star gant gant gant amen familyan	603.8 19.8 13			
115	x 95% C.I. n	643.3 5.8 433	414.0	659.2 5.5 387	677.0 1	654.0 1			

<sup>&</sup>lt;sup>1</sup> Sexes combined

Table 11. Summary table of the percentage age composition of coho salmon in the commercial purse seine harvest in Southeastern Alaska, 1982.

			Brood Year and Age Class				
	Sample	Total	19	79	1978	1977	
District	Size	Catch	1.1	2.0	2.1	3.1	
101-1021	87	142,314	75.9	0.0	24.1	0.0	
104	168	158,565	63.1	0.0	36.3	0.6	
109-110 <sup>1</sup>	213	62,058	52.6	0.9	44.6	1.9	
112-1141	197	67,186	56.9	0.0	41.6	1.5	

Samples from these districts were combined because of small singledistrict sample sizes.

Table 12. Mean length ( $\pm$  95% C.I. in mm) by age class of coho salmon from purse seine harvests in Southeastern Alaska,  $1982^{1}$ .

		BROOD YEAR AND AGE CLASS					
		19	79	1978	1977		
District		1.1	2.0	2.1	3.1		
101-102 <sup>2</sup>	x 95% C.I. n	622.1 10.9 66		612.8 23.4 21			
104	x 95% C.I. n	591.2 9.2 106	igen- disp- ferri dira, gara igen diran gg- dira diran	607.2 12.2 61	590.0 1		
109 <b>-</b> 110 <sup>2</sup>	x 95% C.I. n	572.9 9.5 112	339.5 65.7 2	585.2 9.9 95	589.2 24.3 4		
112 <b>-</b> 114 <sup>2</sup>	x 95% C.I. n	580.8 9.5 112	ophica Shark Gerri Saffer (Saine Shine Shine Shire Shi	604.8 8.9 82	586.3 119.2 3		

Sexes combined

<sup>&</sup>lt;sup>2</sup> Districts combined due to small single-district sample sizes.

Table 13. Summary table of the percentage age composition of coho salmon in the commercial hand and power troll harvest in Southeastern Alaska, 1982¹.

				Brood Year and	
	Sample	Total	1979	1978	1977
District	Size	Catch	1.1	2.1	3.1
101-102	551	164,369	67.0	31.9	1.1
103-104	160	138,911	59.4	40.0	0.6
105, 109,	110 451	127,761	55.4	41.0	3.6
113, 154	993	474,039	57.5	40.7	1.8
114	444	132,850	48.7	49.8	1.6
116, 181,	189 714	147,978	55.2	44.2	0.6

 $<sup>^{</sup>m 1}$  In several cases, adjoining district samples were combined to obtain statistically valid sample sizes.

Table 14. Mean length ( $\pm$  95% C.I. in mm) by age class of coho salmon from hand and power troll harvests in Southeastern Alaska, 1982 $^{1}$ .

		BRO	BROUD YEAR AND AGE CLASS				
		1979	1978	1977			
District		1.1	2.1	3.1			
101-102	x	595.1	608.7	599.0			
	95% C.I	6.1	8.8	31.0			
	n	369	176	6			
103-104	x 95% C.I. n	587.5 11.0 95	599.3 12.1 64	585.0			
105,109,110	x	590.0	602.5	610.4			
	95% C.I.	6.4	6.3	16.8			
	n	250	185	16			
113,154	x	620.6	628.0	634.5			
	95% C.I.	4.4	5.3	18.4			
	n	571	404	18			
114	x	618.1	631.4	587.1			
	95% C.I.	7.3	6.1	10.0			
	n	216	221	7			
116,181,189	x	629.2	636.0	629.0			
	95% C.I.	5.7	6.1	50.2			
	n	386	322	6			

Samples from some adjacent districts were combined in order to obtain statistically valid sample sizes. Sexes were also combined.

Table 15. Peak escapement and weir counts for Southeastern Alaska coho salmon spawning systems, 1982. Abbreviations for types of surveys are as follows: (A) aerial-fixed wing, (F) foot survey, (H) helicopter survey, (T) mark recapture estimate, and (W) weir<sup>1</sup>.

Stream Number	Stream Name	Count	Method	Date	Organization
101-11-079	Fillmore Creek	35	(F)	9/23	NMFS <sup>2</sup>
101-15-019	Tombstone River	44	(F)	9/22	ADF&G <sup>3</sup>
101-30-030	Keta River	100	(F)	9/24	ADF&G
		725	(H)	10/17	ADF&G
101-30-060	Marten River	115	(H)	10/17	ADF&G
101-30-075	Hugh Smith Lake	1,118	(W)	6/06-11/26	ADF&G
		2,404	(T)	11/26	ADF&G
101-30-083	Humpback Creek	596	Œ)	10/22	ADF&G
101-45-038	Salt Chuck (George Inlet)	503	(A)	8/11	ADF&G
101-45-094	Spit Creek	36	(F)	9/27	ADF&G
101-47-015	Ward Creek	81	Œ)	11/02	ADF&G
101-55-040	Blossom River	1,350	(H)	10/17	ADF&G
101-47-025	Deer Mountain Hatchery	1,177	(W)	9/30-12/23	ADF&G
101-60-015	Rudyerd Creek	230	(F)	9/15	ADF&G
101-71-004	Chickamin River	120	(H)	12/15	ADF&G
101-71-028	Walker Creek	62	(F)	9/16	ADF&G
101-75-005	Herman Creek	75	Œ)	9/10	ADF&G
101-75-015	Eulachon River	58	Œ)	9/08	ADF&G
		15	(H)	12/14	ADF&G
101-75-030	Unuk River	90	(H)	12/14	ADF&G
101-75-085	Indian Creek	1,275	Œ)	10/28	ADF&G
101-80-068	McDonald Lake	1,266	(W) 4	7/02-9/12	ADF&G
101-90-050	Naha River	31	(F)	9/29	ADF&G
101-90-080	Helm Bay Head	28	Œ)	9/22	ADF&G
101-90-092	Stewart Creek	31	(F)	9/23	ADF&G
102-30-067	Kegan Lake	616	(W) 4	6/19-9/22	NMFS
102-40-060	Lagoon Creek	225	(F)	10/17	ADF&G
102-40-087	Sunny Creek	120	Œ)	9/24	ADF&G
102-60-037	Rock Creek	25	(Ē)	9/09	ADF&G
102-60-072	Twelvemile Creek	50	Œ)	9/09	ADF&G
102-60-082	Harris River	38	(Ē)	9/25	ADF&G
102-60-084	Maybeso Creek	29	Ē)	9/25	ADF&G
102-60-087	Karta River	3,972	(M) <sub>1</sub>	6/24-9/22	NMFS
102-70-058	Thorne River	29	Œ)	9/05	ADF&G
103-15-027	Klakas Lake	562	(w)	7/30-11/20	ADF&G
103 13 027	ICEACO INCE	627	(T)	11/20	ADF&G
103-40-035	Natzuhini (NE Corner)	52	(F)	9/18	ADF&G
103-60-047	Klawock River	3,309	(W)	6/28-10/11	ADF&G
103-60-047	Port St. Nickolas Head	200	(F)	9/26	ADF&G
103-60-075	Trocadero Bay	75	(F)	9/27	ADF&G
103-60-077	Trocadero Bay R. Head	250	(F)	9/27	ADF&G
103-80-077	Chuck Lake	1.017	(W)	8/23-11/13	ADF&G
103-80-031	Sarkar Lake	4,976	(M) <sub>7</sub>	6/14-8/22	NMFS
103-90-010		27.4	(N)	9/23	ADF&G
103-90-042	Staney Creek Shaheen Creek	25	(F) (F)	9/20	ADF&G
103-90-080	Devilfish Bay Head	60	(F)	9/13	ADF&G
105-32-082				9/27	ADF&G
105-42-009	Seclusion Harbor Head El Capitan Creek	110 28	(F) (F)	9/26	ADF&G
105-50-001				9/25	ADF &G ADF &G
106-21-005	Trout Creek (Kosciusko Island		(F)	9/27	
106-41-010	Trout Creek (McHenry Inlet)		(F) (W) <sup>4</sup>	6/26-9/02	ADF&G ADF&G
106-41-010	Salmon Bay Lake	124		*	
	Totem Creek Pridge Creek (Plind Slough)	77	(F)	9/29	ADF&G
106-44-024	Bridge Creek (Blind Slough)	52	(F)	11/02	ADF&G
106-44-027	Powerline Creek	83	(F)	10/29	ADF&G
106-44-029	Blind River	53	(F)	11/04	ADF&G
106-44-180	First S Rockwall Blind	28	(F)	11/04	ADF&G
107-10-030	Black Bear Creek	45	(F)	9/29	ADF&G
107-20-030	Menefee Creek	228	(F)	9/24	ADF&G

Table 15. Peak escapement and weir counts for Southeastern Alaska coho salmon spawning systems, 1982. Abbreviations for types of surveys are as follows: (A) aerial-fixed wing, (F) foot survey, (H) helicopter survey, (T) mark recapture estimate, and (W) weir (continued).

Stream Number	Stream Name	Count	(Method)	Date	Organization
107-20-070	F∞l's Inlet Head W.	80	<b>(F)</b>	9/24	ADF&G
107-40-038	Marten Creek (Bradfield River)	30	(A)	10/16	ADF&G
107-40-047	Tom Lake Creek	100	(A)	10/16	ADF&G
107-40-049	Harding River	50	(A)	10/16	ADF&G
107-40-052	Bradfield River (North Fork)	25	(A)	10/16	ADF&G
107-40-055	Eagle River (Bradfield River)	300	(A)	10/16	ADF&G
108-40-010	North Arm Creek	94	Œ)	10/20	ADF&G
108-40-013	Shakes Slough	73	Œ)	10/20	ADF&G
108-40-016	Kikahe River	201	(H)	10/26	ADF&G
108-40-018	Shuktusa Branch	142	(F)	10/19	ADF&G
108-40-020	Andrews Creek	382	Œ)	10/21	ADF&G
108-40-050	Ohmer Creek	160	Œ)	10/21	ADF&G
108-40-13A	West of Hot Springs	268 50	(F)	10/20	ADF&G
108-70-011	Katete River	279	(H)	10/26	ADF&G
108-70-014	Geoffrion C. (Katete River)		(H)	10/26	ADF&G
108-70-073	Jekill River	29	(H)	10/26	ADF&G
108-80-001	Crystal Lake Hatchery	10,815	(W)	8/30-11/10	ADF&G
109-10-006	Sashin Creek (Port Walter N.)	139	(W)	10/31	NMFS
109-20-013	Falls Lake (Baranof Island)	152	(W)	6/30-9/17	ADF&G
111-32-046	Moose Creek (Taku River)	32	(F)	10/22	ADF&G
111-32-056	Fish Creek (Taku River)	30	(H)	10/22	ADF&G
111-32-066	Yehring Creek (Taku River)	36	(H)	10/15	ADF&G
		353	(F)	10/22	ADF&G
111-32-068	Johnson Creek (Taku River)	130	(H)	10/15	ADF&G
		75	(F)	10/22	ADF&G
111-32-203	Wilms Creek (Taku River)	105	(H)	10/22	ADF&G
111-33-034	Speel Lake	1,183	(W)	9/08-11/10	ADF&G
111-40-007	Switzer Creek	80	Œ)	10/20	ADF&G
111-40-012	Vanderbilt Creek	33	Œ)	10/21	ADF&G
111-50-006	Herbert River	227	Œ)	11/01	ADF&G
111-50-010	Peterson Creek (Favor Cove)	320	Œ)	10/15	ADF&G
111-50-042	Auke Lake	447	(W)	7/19-11/30	NMFS
111-50-052	Montana Creek	545	(F)	10/20	ADF&G
111-50-056	Steep Creek	232	Œ)	10/21	ADF&G
111-50-057	Mendenhall Ponds	83	(Ē)	10/26	ADF&G
111-50-062	Jordon Creek	368	(F)	10/12	ADF&G
112-67-025	Freshwater Lake Outlet	3	(A)	9/22	ADF&G
112-67-035	Hasselborg River	150	(A)	9/22	ADF&G
112-07-033	hassemory kiver	208			
330 67 040	Timbe Court		(F)	10/18	ADF&G
112-67-040	Jim's Creek	30	(A)	9/03	ADF&G
		189	Œ)	10/18	ADF&G
112-80-028	Chaik Bay Creek	433	(F)	10/15	ADF&G
113-22-008	Politofski Lake Outlet	1,709	(T)	11/14	ADF&G
		388	(W)	8/15-11/17	ADF&G
113-22-028	Port Banks	2,500	(A)	7/28	ADF&G
113-41-015	Starrigavin Creek	317	(F)	10/21	ADF&G
113-41-019	Indian River (Sitka)	125	(F)	10/19	ADF&G
113-41-032	Salmon Lake	67	(F)	11/04	ADF&G
113-41-042	Kizhuchia Creek (Red Bay)	61	(F)	9/17	USFS <sup>5</sup>
113-41-043	Redoubt Lake	168	(W) 4	6/23-8/22	ADF&G
113-62-008	Sinitsin Cove Head	46	(F)	10/20	ADF&G
113-64-001	Deep Bay Head	300	(A)	9/13	ADF&G
		156	(F)	10/19	ADF&G
113-65-004	Fish Bay Creek	75	(F)	10/19	ADF&G
113-73-003	Ford Arm Lake	2,105	(W)	8/14-11/14	ADF&G
		2,662	(T)	11/17	ADF&G
113-91-014	Falls Creek (East of Post I)	508	(Ē)	10/16	NSRAA <sup>6</sup>
115-20-010	Berners River	9,000	(A)	10/19	ADF&G
010	TOTALLE ICTALLE	7,505	(T)	11/05	ADF&G

Table 15. Peak escapement and weir counts for Southeastern Alaska coho salmon spawning systems, 1982. Abbreviations for types of surveys are as follows: (A) aerial-fixed wing, (F) foot survey, (H) helicopter survey, (T) mark recapture estimate, and (W) weir (continued).

Stream Number	Stream Name	Count	(Method)	Date	Organization
115-20-020	Lace River (Berners Bay)	100	(A)	9/17	ADF&G
115-20-030	Antler-Gilkey River	120	(A)	11/01	ADF&G
115-20-062	Cowee Creek (Berners Bay)	66	(F)	10/21	ADF&G
115-20-063	Davies Creek	47	<b>(H)</b>	10/07	ADF&G
115-32-025	Chilkat River	447	(F)	11/03	ADF&G
115-32-027	Clear Creek (Murphy Flat)	81.	(F)	11/04	ADF&G
115-32-032	Chilkat Lake Outlet	152	(W)	6/25-10/07	ADF&G
		21	Œ)	11/15	ADF&G
115-32-061	Mule Meadows	83	(F)	11/17	ADF&G
115-32-064	Kelsall River	161	Œ)	10/22	ADF&G
115-32-068	Tahini River	130	Œ)	11/03	ADF&G
115-32-080	18 Mile Slough	43	(F)	11/16	ADF&G
115-33-030	Chilkoot River	32	Œ)	11/10	ADF&G

<sup>1</sup> Includes only those surveys in which more than 25 coho salmon were counted.

<sup>&</sup>lt;sup>2</sup> National Marine Fisheries Service.

<sup>&</sup>lt;sup>3</sup> Alaska Department of Fish and Game.

Weir removed before coho salmon spawning migration was complete.

<sup>&</sup>lt;sup>5</sup> U.S. Forest Service.

<sup>6</sup> Northern Southeast Regional Aquaculture Association.

Nine weirs remained operational throughout the 1982 coho salmon run and provided complete run timing data (Table 16). No geographic timing trends were apparent in the data. Chuck Lake fish exhibited the earliest mean date of migration (23 September) while Klakas Lake fish showed the latest mean date (24 October). Most system's mean dates of coho salmon migration occurred in early to mid-October.

Variability in duration of the run was extreme. For example, 80% of the Auke Lake coho salmon run passed through the weir in 15 days (20 September to 5 October), while it took 75 days (1 September to 14 November) for 80% of the Ford Arm Lake run to pass through the weir.

Age Composition, Size, and Sex Information:

Age, length, and sex information were obtained from the escapements to 15 coho salmon systems in Southeastern Alaska. Although none of these systems were sampled intensively enough to yield the desired minimum of 454 ageable scales, in many cases a sufficient proportion of the total escapement was sampled to allow accurate description of age composition when a finite population correction factor was used.

Age compositions of coho salmon escapements to 15 systems are presented in Table 17. Seven age classes were represented in the escapements, while age 1.1 and age 2.1 fish predominating. These two age groups comprised from 90.6% (Auke Lake) to 100% (Deer Mountain and Klawock) of the sampled escapements.

Several differences in age compositions of escapements are notable. Both Crystal Lake and Deer Mountain hatcheries produced primarily age 1.1 fish (98.8 and 97.9% of the respective total samples). At the opposite end of the range, Ford Arm, Auke, Speel, Falls, and Hugh Smith Lakes were composed of relatively small proportions of age 1.1 fish, and showed strong age 2.1 age class components.

There are some indications of a geographic trend toward higher proportions of age 2.1 fish with increasing latitude in natural coho salmon stocks. Notable exceptions, however, include Hugh Smith Lake (60.9% age 2.1 fish), and Berners River (39.0% age 2.1 fish).

Contribution of fish from age groups other than 1.1 and 2.1 in Southeastern escapements ranged from zero to 9.4%. Age 3.1 fish were sampled in most systems and were most abundant in the Auke Lake escapement. Fish from other age classes were relatively rare in escapement samples, however, zero ocean (jack) coho salmon were more abundant than the summary indicates because jacks were intentionally not sampled in most systems. Large escapements of jack coho salmon were noted at Deer Mountain and Crystal Lake hatcheries, and at Auke Lake. Daily and cumulative weir counts and detailed age composition data for each system, by sex, are presented in Appendix Table 17 through 48.

A great deal of variability exists in mean lengths of fish of the same size and sex from different spawning systems (Table 18). Cursory examination of the data revealed no consistent geographic trends in average length between systems.

The male/female ratio differed notably from the expected 50/50 in nine systems out of the 15 for which samples were available. Males were predominant in six

Table 16. Summary of coho salmon run timing through weirs in Southeastern Alaska, 1982.

		CUM	JLATIVE PERCEN	t past weir <sup>5</sup>			
SYSTEM	DATES OF OPERATION	10%	50%	90%	MEAN DATE <sup>3</sup>	VARIANCE 4	
Hugh Smith Lake	June 6-Nov. 26	Sept. 5	October 10	October 18	October 4	315.0	
Deer Mountain Hatchery	Sept. 30-Dec. 23	October 6	November 2	November 30	November 3	405.8	
McDonald Lake 1	July 2-Sept. 12	August 26	Sept. 6	Sept. 10	Sept. 4	63.0	
Kegan Lake <sup>1</sup>	June 19-Sept. 22	August 23	Sept. 7	Sept. 14	Sept. 6	73.6	
Karta River <sup>1</sup>	June 24-Sept. 22	August 6	Sept. 2	Sept. 14	August 28	288.0	
Klakas Lake	July 30-Nov. 20	August 8	Sept. 5	October 10	October 24	454.6	
Klawock River 1	June 28-Oct. 11	August 28	Sept. 6	October 5	Sept. 11	233.7	
Chuck Lake	Aug. 23-Nov. 13	Sept. 6	Sept. 16	October 9	Sept. 23	203.4	
Sarkar River <sup>1</sup>	June 14-Aug. 22	August 5	August 9	August 18	August 10	24.8	
Crystal Lake	Aug. 30-Nov. 10	October 3	October 13	November 10	October 19	250.4	
Falls Lake <sup>l</sup>	June 30-Sept. 17	August 19	August 24	Sept. 12	2	2	
Speel Lake	Sept. 8-Nov. 10	Sept. 29	October 9	October 30	October 12	150.5	
Auke Lake	July 19-Oct. 16	Sept. 20	Sept. 29	October 5	Sept. 28	43.5	
Politofski Lake	Aug. 15-Nov. 17	Sept. 14	2	October 13	October 8	211.0	
Redoubt Lake <sup>1</sup>	June 23-Aug. 22	July 27	August 10	August 15	August 8	68.6	
Ford Arm Lake	Aug. 14-Nov. 14	Sept. 1	October 11	November 14	October 9	676.8	
Chilkat Lake <sup>l</sup>	June 25-Oct. 7	Sept. 23	Sept. 26	Sept. 29	Sept. 26	6.5	

Weir operation did not extend throughout the coho salmon run. Timing data are of limited value.

Insufficient data.
 Rounded to the nearest calendar date.

Days squared.
Dates were interpolated when necessary.

Table 17. Summary table of the percentage age composition of coho salmon in escapements to Southeastern Alaska systems in 1982.

		Brood Year and Age Class							
Stream		Sample	1980	19	79		78	1977	1976
Number	System	Size	1.0	1.1	2.0	2.1	3.0	3.1	4.1
101-11-079	Hugh Smith	355	0.0	34.6	2.0	60.9	0.0	2.6	0.0
101-47-025	Deer Mountain <sup>1</sup>	283	0.0	97.9	0.0	2.1	0.0	0.0	0.0
101-80-068	McDonald	159	0.0	67.3	0.0	28.9	0.0	3.2	0.0
103-15-027	Klakas²	341	0.0	84.7	0.6	14.4	0.0	0.3	0.0
103-60-047	Klawock	97	0.0	68.1	0.0	31.9	0.0	0.0	0.0
103-80-031	Chuck <sup>3</sup>	376	0.3	80.3	0.3	18.3	0.0	0.8	0.0
108-80-001	Crystal <sup>4</sup>	412	0.5	98.8	0.0	0.7	0.0	0.0	0.0
109-20-013	Falls	85	0.0	36.5	0.0	58.8	0.0	4.7	0.0
111-33-034	Speel <sup>5</sup>	393	0.0	37.7	0.3	60.0	0.3	1.8	0.0
111-50-042	Auke <sup>6</sup>	160	0.0	38.9	0.0	51.7	0.0	9.4	0.0
113-22-008	Politofski	149	0.0	49.7	0.0	47.6	0.0	2.7	0.0
113-41-043	Redoubt	66	0.0	45.5	0.0	51.5	0.0	1.5	1.5
113-73-003	Ford Arm	365	0.0	31.8	0.3	66.6	0.0	1.4	0.0
115-20-010	Berners	336	0.3	60.1	0.0	39.0	0.0	0.6	0.0
Unassigned	Snettisham Hatchery	136	0.7	77.3	0.7	21.3	0.0	0.0	0.0

 $<sup>^{1}</sup>$  696 jacks were counted through the weir, but were not sampled for age data.

<sup>31</sup> jacks were counted through the weir, but were not sampled for age data.

<sup>&</sup>lt;sup>3</sup> 16 jacks were counted through the weir, but were not sampled for age data.

<sup>680</sup> jacks were counted through the weir, but were not sampled for age data.

<sup>38</sup> jacks were counted through the weir, but were not sampled for age data.
338 jacks were counted through the weir, but were not sampled for age data.

Table 18. Mean length ( $\pm$  95% C.I. in mm) by sex and age group of coho salmon from escapements in Southeastern Alaska, 1982.

					BROOD YE	AR AND AG	E CLASS		
			1980	19	79	19	78	1977	1976
System	Sex		1.0	1.1	2.0	2.1	3.0	3.1	4.1
Hugh Smith	MALES	x 95% C.I. n		642.1 13.0 79	336.1 14.8 7	655.0 10.5 96		645.0 37.1 3	
	FEMALES	95% C.I.		651.0 9.8 44		655.0 6.4 120		662.5 21.6 6	
Deer Mountain	MALES	y 95% C.I. n		612.4 9.2 153		620.0 79.1 5			
	FEMALES	95% C.I. n		625.5 6.8 124		510.0			
McDonald	MALES	x 95% C.I. n		672.1 13.5 45		655.9 32.3 17		727 - 5 34.3 2	
	FEMALES	95% C.I. n		656.3 9.5 62		664.6 14.8 29		681.7 29.0 3	700.0
Klakas	MALES	95% C.I. n		649.0 8.0 166		670.2 21.3 22		590.0 1	
	FEMALES	95% C.I. n		644.5 9.4 123	521.0 354.8 2	668.3 12.2 27			
Klawock	MALES	x 95% C.I. n		615.8 18.1 30		632.4 31.8 11			
	FEMALES	95% C.I. n		642.3 10.0 36		651.6 12.8 20			
Chuck	MALES	95% C.I. n	320.0	654.4 6.4 101	210.0	651.8 17.7 19			
	FEMALES	x 95% C.I. n		631.3 5.2 201		635.1 10.4 50		650.0 32.1 3	

Table 18. Mean length ( $\pm$  95% C.I. in mm) by sex and age group of coho salmon from escapements in Southeastern Alaska, 1982 (continued).

				BROOD YE	AR AND AG	e CLASS		
		1980	197	9	19	78	1977	1976
System	Sex	1.0	1.1	2.0	2.1	3.0	3.1	4.1
Crystal	MALES ×	285.0	577.7		588.0			
	95% C.I. n	1	7.2 267		1			
FEMALES	FEMALES x	278.0	598.6		573.5			
	95% C.I. n	1	7.6 140		114.7			
Falls MALES 99			597.5		602.4		608.8	
	95% C.I. n		23.2 18		18.2 27		94.7 4	
	FEMALES X		603.1		598.5 13.2			
	95% C.I. n		18.5 13		23			
Speel MALES			606.4 18.5	370.0	653.7 14.0	380.0	697.5 34.3	
	95% C.I. n		92	1	105	1	2	
	FEMALES X		664.5		669.9		665.0	
	95% C.I. n		12 <b>.</b> 7 56		8.3 131		41.1 5	
Auke	MALES × 95% C.I.		613.9 17.4		629.7 14.5		642.6 11.6	
	936 C.1.		31		35		8	
	FEMALES X		620.4		624.2		633.3	
	95% C.I.		16.1 31		8.4 48		20.2	
Politofski	MALES X		645.1 18.6		661.9 15.7		640.0 39.2	
	95% C.I. n		35		35		2	
	FEMALES X		646.9		658.5 10.3		635.0 29.4	
	95% C.I. n		13.9 39		36		29,4	
Redoubt	MALES x		561.9		558.4			540.0
	95% C.I. n		26.8 24		30.0 25			1
	FEMALES X		592.5		626.1		630.0	
	95% C.I. n		32.6 6		28.6 9		1	

Table 18. Mean length ( $\pm$  95% C.I. in mm) by sex and age group of coho salmon from escapements in Southeastern Alaska, 1982 (continued).

					BROOD YE	AR AND AG	e CLASS		
			1980	19	79	19	78 19	977	1976
System	Sex		1.0	1.1	2.0	2.1	3.0 3.	3.1	4.1
Ford Arm 1	MALES	х		642.3	372.0	659.1	673		
		95% C.I.		15.0		8.8	58	3.8	
FEMALES	n		62	1	115		2		
	FEMALES	x		652.8		661.9	696	5 - 7	
		95% C.I.		10.9		6.9	13	2.0	
		n		54		128		3	
Berners	MALES	х	393.0	627.8		661.6	65:	5.0	h.,
		95% C.I.	0,000	10.0		12.2	-		
		n	1	128		80		1	
	FEMALES	x		653.1		669.0	. 630	0.0	
		95% C.I.		6.3		9.2	•		
		מ		74		51		1 ,	
Snettisham	MALES	х	448.0	591.9	330.0	643.1			
		95% C.I.		19.0		30.6			
		n	1	54	1	14			
	FEMALES	x		602.3		669.4			
		95% C.I.		15.2		17.3			
		n		51		15			

of those systems (Deer Mountain, Klakas, Crystal Lake, Falls Lake, Redoubt Lake, and Berners River), while females predominated in the McDonald Lake, Klawock River, and Chuck Lake escapements.

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APPENDICES

Appendix Table 1. District 101 commercial gillnet catch of coho salmon, age composition by sample period, 1982.

			BROOD YEAR	ramatan da <sup>2</sup> am ampangan dan dan gun	
			1979	1978	- Mari Mari Mari Mari Apari Apar
Period	Sex 1	r Gerl Mer. Mer Melskiel Mir Mer Mer Mer han bes	1.1	2.1	Total
July 23—Sept 3 (n=55)	Sexes Combined	COUNI' PERCENT	29,284 83.64	5,729 16.36	35,013 100.00

 $<sup>^{\</sup>rm 1}$   $\,$  Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 2. District 106 commercial gillnet catch of coho salmon, age composition by sample period, 1982.

		paran dan dan gan gan dan dan dan dan dan	BROOD Y			
		_	1979	1978	1977	
Period	Sex 1		1.1	2.1	3.1	TOTAL
July 14-Sept 14 (n=298)	Sexes Combined	COUNT PERCENT	15,994 35.57	27.462 61.07	1,509 3.36	44,965 100.00

 $<sup>^{\</sup>mbox{\scriptsize 1}}$  Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 3. District 108 commercial gillnet catch of coho salmon, age composition by sample period, 1982.

\$			BROOD YEAR AND AGE CLASS						
			1979	1978	1977				
Period	Sex 1		1.1	2.1	3.1	TOTAL			
Aug 10-Sept 14 (n=215)	Sexes Combined	COUNT PERCENT	7,633 37.67	11.874 58.61	754 3.72	20,261 100.00			

 $<sup>^{\</sup>rm 1}$   $\,$  Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 4. District III commercial gillnet catch of coho salmon, age composition by sample period, 1982.

		der Speech State States of States Speech States	BROOD Y	BROOD YEAR AND AGE CLASS			
		_	1979	1978	1977		
Period	Sex 1		1.1	2.1	3.1	TOTAL	
July 7-Sept 4 (n=508)	Sexes Combined	COUNT PERCENT	12,304 42.32	16,024 55,12	744 2.56	29,072 100.00	

 $<sup>^{\</sup>mbox{\scriptsize 1}}$  Sex determination was not made for any samples. No breakdown by sex.

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Appendix Table 5. District 115 commercial gillnet catch of coho salmon, age composition by sample period, 1982.

Period		-	1979		1978	1977		
	Sex 1		1.1	2.0	2.1	2.2	3.1	Total
Aug 12-Sept 14 (n=425)	Sexes Combined	COUNT PERCENT	21,295 55.53	90 0.23	16,873 44.00	0.00	90 0.23	38,348 100.00
Sept 21 Oct 15 (n=398)	Sexes Combined	COUNT PERCENT	16,760 49.50	0.00	17.015 50.25	85 0.25	0.00	33,860 100.00
TOTAL (n=823)	Sexes Combined	COUNI' PERCENT	38,055 52.70	90 0.12	33,888 46.93	85 0.12	90 0.12	72,208 100.00

<sup>&</sup>lt;sup>1</sup> Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 6. Stikine River Canadian gillnet fishery catch of coho salmon, sex and age group by sample period, 1982.

gand (MAS) are The Class Class (See Agent days (Presidence Class Class Class (See Agent Class Class (See Agent	والمرابسة المستبدة المن ينحامين للحالي المن المنافق المنافقة المنا	lana gara dina gasa dina dina dina dina dina dina dina din	BROOD Y				
		-	1979	1978	1977		
Period	Sex		1.1	2.1	3.1	TOTAL	
Aug 31-Sept 17 (n=651)	Males	COUNT PERCENT	4,151 26.10	4,644 29.20	95 0 <b>.</b> 60	8,890 55.90	
	Females	COUNT PERCENT	3,515 22.10	3,419 21.50	80 0.50	7,014 44.10	
	Sexes Combined	COUNT PERCENT	7,666 48.20	8,063 50.70	175 1.10	15,904 100.00	

Appendix Table 7. Districts 101 and 102 (combined) commercial purse seine catch of coho salmon, age composition by sample period, 1982.

ama derespote spir sp. Again Standardon San Spandardon San San San San	نداق ده از دهای دیدها هم <u>ده . بد</u> و دیداق همی <b>ن دستان مسید . بدو</b> دیدان در ا	15	BROOD YEAR	AND AGE CLASS	
			1979	1978	
Period	Sex 1	den der stere gereitere finst timm gene gereiter	1.1	2.1	Total
Aug 2-Sept 10 (n=87)	Sexes Combined	COUNT PERCENT	107.962 75.86	34,352 24.14	142,314 100.00

 $<sup>^{\</sup>mbox{\scriptsize 1}}$  Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 8. District 104 commercial purse seine catch of coho salmon, age composition by sample period, 1982.

		BROOD YEAR AND AGE CLASS						
		<del>-</del>	1979	1978	1977			
Period	Sex 1		1.1	2.1	3.1	Total		
July 5-Aug 21 (n=168)	Sexes Combined	COUNT PERCENT	96.892 63.10	55,759 36.31	914 0.60	153.565 100.00		

<sup>&</sup>lt;sup>1</sup> Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 9. Districts 109 and 110 (combined) commercial purse seine catch of coho salmon, age composition by sample period, 1982.

	<del></del>			BROOD YEA	AR AND AGE CL	ASS	
		•	1979		1978 1977		
Period	Sex		1.1	2.0	2.1	3.1	TATOT
Aug 2-Sept 9 (n=213)	Sexes Combined	COUNT PERCENT	32,632 52.58	583 0.94	27 - 678 44 • 60	1,165 1.88	62,058 100.00

Appendix Table 10. Districts 112 and 114 (combined) commercial purse seine catch of coho salmon, age composition by sample period, 1982.

			BROOD YEAR AND AGE CLASS					
		~	1979	1978	1977			
Period	Sex 1		1.1	2.1	3.1	TOTAL		
July 13-Aug 18 (n=197)	Sexes Combined	COUNT PERCENT	38,197 56.85	27,966 41.62	1,023 1.52	67,186 100.00		

 $<sup>^{\</sup>mathrm{1}}$  Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 11. Districts 101 and 102 (combined) commercial hand and power troll catch of coho salmon, age composition by sample period, 1982.

- Specific and the specific and the specific and the specific spec	radium basellara diner kinn kum tina tini-ilim Pro- birrativa t		BROOD YEAR AND AGE CLASS					
			1979	1978	1977			
Period	Sex <sup>1</sup>	·	1.1	2.1	3.1	TOTAL		
July 12—Sept 17 (n=551)	Sexes Combined	COUNT PERCENT	110,076 66.97	52,503 31.94	1,790 1.09	164,369 100.00		

Appendix Table 12. Districts 103 and 104 (combined) hand and power troll catch of coho salmon, age composition by sample period, 1982.

the state of the s			BROOD YEAR AND AGE CLASS					
		_	1979	1978	1977			
Period	Sex 1		1.1	2.1	3.1	TOTAL		
July 7-Sept 2 (n=160)	Sexes Combined	COUNT PERCENT	82,479 59.38	55,564 40.00	868 0.62	138,911 100.00		

 $<sup>^{1}</sup>$  Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 13. Districts 105, 109, and 110 (combined) hand and power troll catch of coho salmon, age composition by sample period, 1982.

Girl Semble-Ber genger der Sentite for anagendes ausger Sen	r Hame and a distance (Sept. Sept. State Strate Spine Anne, september 1		BROOD YEAR AND AGE CLASS					
		_	1979	1978	1977			
Period	Sex 1		1.1	2.1	3.1	TOTAL		
July 7-Aug 31 (n=451)	Sexes Combined	COUNT PERCENT	70,820 55,43	52,408 41.02	4,533 3.55	1 <i>2</i> 7.761 100.00		

 $<sup>^{\</sup>mbox{\scriptsize 1}}$  Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 14. Districts 113 and 154 (combined) hand and power troll catch of coho salmon, age composition by sample period, 1982.

			BROOD Y			
			1979	1978	1977	
Period	Sex 1	- Dan speriter- dere Di- Di- have skew then Di-	1.1	2.1	3.1	TOTAL
June 24-Aug 7	Sexes	COUNT	149,890	97,186	4,835	251.911
(n=521)	Combined	PERCENT	59.50	38.58	1.92	100.00
Aug 8-Sept 13	Sexes	COUNT	122,829	95,534	3,765	222,128
(n=472)	Combined	PERCENT	55.30	43.01	1.69	100.00
TOTAL	Sexes	COUNI'	272,719	192,720	8,600	474,039
(n=993)	Combined	PERCENI	57.53	40.65	1.81	100.00

<sup>&</sup>lt;sup>1</sup> Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 15. District 114 hand and power troll catch of coho salmon, age composition by sample period, 1982.

and the first firs			BROOD YEAR AND AGE CLASS					
		<u>-</u>	1979	1978	1977			
Period	Sex 1		1.1	2.1	3.1	TOTAL		
July 6-Sept 20 (n=444)	Sexes Combined	COUNI' PERCENI'	64,630 48.65	66,126 49.77	2,094 1.58	132,850 100.00		

<sup>&</sup>lt;sup>1</sup> Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 16. Districts 116, 181, and 189 (combined) hand and power troll catch of coho salmon, age composition by sample period, 1982.

			BROOD YEAR AND AGE CLASS					
		<del>-</del>	1979	1978	1977	dus - Bart direct direc		
Period	Sex 1	-ter to the track of the second of	1.1	2.1	3.1	TOTAL		
July 6-July 28	Sexes	COUNT	12,475	11,377	314	24,166		
(n=308)	Combined	PERCENT	51.62	47.08	1.30	100.00		
Aug 11-Sept 14	Sexes	COUNT	69,225	53,977	610	123,812		
(n=406)	Combined	PERCENT	55.91	43.60	.49	100.00		
TOTAL	Sexes	COUNT	81.700	65,354	924	147,978		
(n=714)	Combined	PERCENT	55.21	44.16	.62	100.00		

 $<sup>^{\</sup>rm 1}$   $\,$  Sex determination was not made for any samples. No breakdown by sex.

Appendix Table 17. Hugh Smith Lake weir counts of coho salmon, 1982.

	N	ımbers	Pro	portion
Date	Daily	Cumulative	Daily	Cumulative
August 1	1	1	0.00043	0.00043
12	4	5	0.00174	0.00217
13	5 3 5 2 4	10	0.00217	0.00434
14	3	13	0.00130	0.00565
15	5	18	0.00217	0.00782
16	2	20	0.00087	0.00869
17	4	24	0.00174	0.01043
18	5	29	0.00217	0.01260
19	5 <b>4</b>	33	0.00174	0.01434
20	1	34	0.00043	0.01477
21	0	34	0.00000	0.01477
22	1	35	0.00043	0.01520
23	0	35	0.00000	0.01520
24	1	36	0.00043	0.01564
25	0	36	0.00000	0.01564
26		37	0.00043	0.01607
27	1 2 7	39	0.00087	0.01694
28	7	46	0.00304	0.01998
29	ń	46	0.00000	0.01998
30	0 3 1	49	0.00130	0.02129
31	1	50	0.00043	0.02172
		116	0.02867	0.05039
September 1	63	179	0.02737	0.07776
2	22	201	0.00956	0.08732
J	9	210	0.00391	0.09123
September 1 2 3 4 5	20	230	0.00869	0.09991
6	50	280	0.02172	0.12163
7	34	314	0.01477	0.13640
8	12	326	0.00521	0.14162
9	14	340	0.00608	0.14770
10	14	354	0.00608	0.15378
11	4	358	0.00174	0.15552
12		372	0.00608	0.16160
13		393	0.00912	0.17072
14		407	0.00608	0.17680
15		415	0.00348	0.18028
16		454	0.01694	0.19722
17		483	0.01260	0.20982
		501	0.00782	0.21764
18 19		521	0.00762	0.22632
		521 529	0.00348	0.22980
20		529 538	0.00348	0.23371
21	9		0.00391	0.23588
22	5	543 544	0.00043	0.23632
23		544 547	0.00130	0.23762
24	3	547	0.00720	0.23/02

<sup>-</sup>Continued-

Appendix Table 17. Hugh Smith Lake weir counts of coho salmon, 1982 (continued).

		]	Numbers	Pro	oportion
D	ate	Daily	Cumulative	Daily	Cumulative
September	25	6	553	0.00261	0.24023
	26	6	55 <b>9</b>	0.00261	0.24283
	27	6	565	0.00261	0.24544
	28	4	569	0.00174	0.24718
	29	10	579	0.00434	0.25152
	30	10	589	0.00434	0.25586
October		5	594	0.00217	0.25804
OCCODEL	1 2 3	55	649	0.02389	0.28193
	วั	11	660	0.00478	0.28671
	4	86	7 <i>4</i> 6	0.03736	0.32407
	5	25	771	0.01086	0.33493
	6	20	771 791	0.00869	0.34361
	7	28 28	819	0.01216	0.35578
	8	13	832	0.00565	0.36142
	9	105	937	0.04561	0.40704
			1,389	0.19635	0.60339
	10	452		0.19548	0.79887
	11	450	1.839	0.19548	0.79887
	12	188	2.027	0.00000	0.88054
	13	0	2.027		0.88054
	14	0	2.027	0.00000	0.88792
	15	17	2.044	0.00738	
	16	6	2.050	0.00261	0.89053
	17	19	2.069	0.00825	0.89878
	18	4	2.073	0.00174	0.90052
	19	36	2.109	0.01564	0.91616
	20	21	2.130	0.00912	0.92528
	21	22	2.152	0.00956	0.93484
	22	11	2.163	0.00478	0.93962
	23	14	2.177	0.00608	0.94570
	24	2	2,179	0.00087	0.94657
	25	5	2,184	0.00217	0.94874
	26	5	2.189	0.00217	0.95091
	27	2 5 5 2 3	2,191	0.00087	0.95178
	28		2.194	0.00130	0.95308
	29	7	2,201	0.00304	0.95613
	30	2	2,203	0.00087	0.95699
_	31	4	2.207	0.00174	0.95873
November	1	11	2.218	0.00478	0.9635]
	2	3	2,221	0.00130	0.96481
	1 2 3 4	3 2 4	2.230	0.00087	0.96568
	4	4	2.230	0.00174	0.96785
	5	3	2.230	0.00043	0.9678
	6	1	2.231	0.00043	0.9682
	7	2	2,233	0.00087	0.9691
	8	0	2.233	0.00000	0.9691
	9	1	2.234	0.00043	<b>0.969</b> 5
	10	3	2.237	0.00130	0.97089

Appendix Table 17. Hugh Smith Lake weir counts of coho salmon, 1982 (continued).

		Nu	mbers	Pro	Proportion		
		Daily	Cumulative	Daily	Cumulative		
November	11	3	2.240	0.00130	0.97220		
	12	1	2.241	0.00043	0.97263		
	13	0	2.241	0.00000	0.97263		
	14	0	2.241	0.00000	0.97263		
	15	2	2.243	0.00087	0.97350		
	16	0	2.243	0.00000	0.97350		
	17	Ō	2.243	0.00000	0.97350		
	18	8	2.251	0.00348	0.97698		
	19	10	2.261	0.00434	0.98132		
	20	1	2.262	0.00043	0.98175		
	21	11	2.273	0.00478	0.98653		
	22	4	2.277	0.00174	0.98827		
	23	11	2.288	0.00478	0.99305		
	24	7	2.295	0.00304	0.99609		
	25	ó	2.295	0.00000	0.99609		
	26	7	2.302	0.00304	0.99913		

Appendix Table 18. Age composition of the Hugh Smith Lake coho salmon escapement by period and sex, 1982.

			В				
		-	197	9	1978	1977	
Period	Sex		1.1	2.0	2.1	3.1	TOTAL
Sept 1-Nov 19 (n=355)	Males	COUNT PERCENT	512 22 <b>.</b> 24	45 1.95	624 27.11	19 0.83	1.200 52.13
	Females	COUNT PERCENT	285 12.38	0.00	778 33 <b>.</b> 80	39 1.69	1.102 47.87
	Sexes Combined	COUNT PERCENT	797 34 <b>.</b> 62	45 1.95	1.402 60.90	58 2.52	2.302 100.00

Appendix Table 19. Deer Mountain Hatchery weir counts of coho salmon, 1982.

All the state of t		ì	Numbers		Propor	rtion	
Date		Daily	Cumulative		Daily	Cumulative	
September	30	1	1		0.00085	0.00085	
October	11	262	263		0.22260	0.22345	
	15	58	321		0.04928	0.27273	
	20	54	375		0.04588	0.31861	
	22	78	453		0.06627	0.38488	
	27	60	513		0.05098	0.43586	
November	1	56	569		0.04758	0.48344	
2.0.	4	126	695		0.10705	0.59049	
	9	83	778		0.07052	0.66101	
	10	21	799		0.01784	0.67885	
	17	77	876		0.06542	0.74427	
	26	108	984		0.09176	0.83603	
	30	67	1.051		0.05692	0.89295	
December	8	96	1,147		0.08156	0.97451	
	13	23	1.170		0.01954	0.99405	
	23	7	1.177 1		0.00595	1.00000	

<sup>&</sup>lt;sup>1</sup> Includes 696 jacks.

Appendix Table 20. Age composition of the Deer Mountain Hatchery coho salmon escapement by period and sex,  $1982^1$ .

And the state of t		BROOD YEAR AND AGE CLASS				
			1979	1978		
Period	Sex		1.1	2.1	TOTAL	
Oct 11-Dec 23 (n=283)	MALE	COUNT PERCENT	261 54.26	8 1 <b>.</b> 66	269 55 <b>.</b> 93	
	FEMALE	COUNT PERCENT	210 43-66	2 0.42	212 44.07	
		COUNT PERCENT	471 97 <b>.</b> 92	10 2.08	481 100.00	

Additionally the escapement included 696 jacks which were not sampled for age or size data.

Appendix Table 21. McDonald Lake weir counts of coho salmon, 1982<sup>1</sup>.

		1	Numbers	Propos	Proportion		
	Date	Daily	Cumulative	Daily	Cumulative		
July	14	1	1	0.00079	0.00079		
_	15	0	1	0.00000	0.00079		
	16	0	1	0.00000	0.00079		
	17	0	1	0.00000	0.00079		
	18	0	1	0.00000	0.00079		
	19	0	1	0.00000	0.00079		
	20	0	1	0.00000	0.00079		
	21	1 2	2	0.00079	0.00158		
	22	2	4	0.00158	0.00316		
	23	0	4	0.00000	0.00316		
	24	0	4	0.00000	0.00316		
	25	2	6	0.00158	0.00474		
	26	0	6	0.00000	0.00474		
	27	0	6	0.00000	0.00474		
	28	1	7	0.00079	0.00553		
	29	0	7	0.00000	0.00553		
	30	2 2	9	0.00158	0.00713		
	31	2	11	0.00158	0.00869		
August	1	0	11	0.00000	0.00869		
J	2	0	11	0.00000	0.00869		
	2 3 4	0	11	0.00000	0.00869		
	4	0	11	0.00000	0.00869		
	5	0	11	0.00000	0.00869		
	6	0	11	0.00000	0.00869		
	7	7	18	0.00553	0.01422		
	8	4	22	0.00316	0.01738		
	9	1	23	0.00079	0.01817		
	10	4	27	0.00316	0.02133		
	11	7	34	0.00553	0.02686		
	12	19	53	0.01501	0.04186		
	13	7	60	0.00553	0.04739		
	14	8	68	0.00632	0.0537		
	15	0	68	0.00000	0.0537		
	16	3	71	0.00237	0.05608		
	17	2	73	0.00158	0.0576		
	18	0	73	0.00000	0.0576		
	19	3	76	0.00237	0.0600		
	20	2 0 3 3 3 3 2 5	79	0.00237	0.0624		
	21	3	82	0.00237	0.0647		
	22	3	85	0.00237	0.0671		
	23	2	87	0.00158	0.0687		
	24	5	92	0.00395	0.0726		
	25	23	115	0.01817	0.0908		
	26	16	131	0.01264	0.1034		

Appendix Table 21. McDonald Lake weir counts of coho salmon, 1982¹(continued).

GG fragen free families (************************************	inangan dan kecilahan kecilahan dan Bera B	1	Numbers	Propo	rtion
	Date	Daily	Cumulative	Daily	Cumulative
August	27 28 29 30 31	57 17 11 3 10	188 205 216 219 229	0.04502 0.01343 0.00869 0.00237 0.00790	0.14850 0.16193 0.17062 0.17299 0.18088
Septembe		20 13 17 49 36 345 287 52 72 16 57	249 262 279 328 364 709 996 1,048 1,120 1,136 1,193 1,266	0.01580 0.01027 0.01343 0.03870 0.02844 0.27251 0.22670 0.04107 0.05687 0.01264 0.04502 0.05766	0.19668 0.20695 0.22038 0.25908 0.28752 0.56003 0.78673 0.82780 0.88468 0.89731 0.94234 1.00000

Numbers of coho salmon listed do not represent the entire escapement. Weir operation was terminated before the run was complete.

Appendix Table 22. Age composition of the McDonald Lake coho salmon escapement by period and sex, 1982.

and dividing the strip to a graph is a government of the San			BROOD YEAR AND AGE CLASS					
		•	1979	1978	1977	1976		
Period	Sex	1.1		2.1	3.1	4.1	TOTAL	
July 14—Sept 11 (n=159)	Males	COUNT PERCENT	358 28.30	135 10.70	17 1.30	0 0.00	510 40.30	
	Females	COUNT PERCENT	494 39.00	230 18.20	24 1.90	8 0.60	756 59 <b>.</b> 70	
	Sexes Combined	COUNT PERCENT	852 67 - 30	365 28 <b>.</b> 90	41 3.20	8 0.60	1.266 100.00	

Appendix Table 23. Kegan Lake weir counts of coho salmon, 1982¹.

		!	Numbers	Propo	rtion
	Date	Daily	Cumulative	Daily	Cumulative
August	12	2	2	0.00325	0.00325
	13	13	15	0.02110	0.02435
	14	1	16	0.00162	0.02597
	15	10	26	0.01623	0.04221
	16	5	31	0.00812	0.05032
	17	3	34	0.00487	0.05519
	18	1	35	0.00162	0.05682
	19	1	36	0.00162	0.05844
	20	4	40	0.00649	0.06494
	21	9	49	0.01461	0.07955
	22	7	56	0.01136	0.09091
	23	6	62	0.00974	0.10065
	24	6	68	0.00974	0.11039
	25	5	73	0.00812	0.11851
	26	13	86	0.02110	0.13961
	27	12	98	0.01948	0.15909
	28	8	106	0.01299	0.17208
	29	2	108	0.00325	0.17532
	30	2 5	110	0.00325	0.17857
~	31		115	0.00812	0.18669
Septemb		10	125	0.01623	0.20292
	2	19	144	0.03084	0.23377
	2 3 4 5	9	153	0.01461	0.24838
	4	10	163	0.01623	0.26461
	5	22	227	0.03571	0.30032
	. 6	42	227	0.06818	0.36851
	7	73	300	0.11851	0.48701
	8	50	350	0.08117	0.56818
	9	41	391	0.06656	0.63474
	10	24	41.5	0.03896	0.67370
	11	72	487	0.11688	0.79058
	12	15	502 510	0.02435	0.81494
	13	17	519 554	0.02760	0.84253
	14 15	35 7	554 561	0.05682	0.89935
	16	15	57 6	0.01136	0.91071
	17	10	576 586	0.02435	0.93506 0.95130
	18		600	0.01623	
	19	14		0.02273	0.97403
	20	7 9	607	0.01136	0.98539
	20	9	616	0.01461	1.00000

Numbers of coho salmon listed do not represent the entire escapement. Weir operations were terminated before the run was complete.

Appendix Table 24. Karta River weir counts of coho salmon, 1982¹.

		]	Numbers	Propor	tion
	.Date	Daily	Cumulative	Daily	Cumulative
June	29	1	1	0.00025	0.00025
_	30	1 3	2	0.00025	0.00050
July	1	3	5	0.00076	0.00126
	2 3 4	0	5	0.00000	0.00126
	3	1	6	0.00025	0.00151
		11	17	0.00277	0.00428
	5	11	28	0.00277	0.00705
	6	9	37	0.00227	0.00932
	7	0	37	0.00000	0.00932
	8	13	50	0.00327	0.01259
	9	2	52	0.00050	0.01309
	10	6	58	0.00151	0.01460
	11	3	61	0.00076	0.01536
	12	. 1	62	0.00025	0.01561
	13	51	113	0.01284	0.02845
	14	5 3	118	0.00126	0.02971
	15		121	0.00076	0.03046
	16	4	125	0.00101	0.03147
	17	0	125	0.00000	0.03147
	18	4	129	0.00101	0.03248
	19	7	136	0.00176	0.03424
	20	31	167	0.00780	0.04204
	21	26	193	0.00655	0.04859
	22	4	197	0.00101	0.04960
	23	5	202	0.00126	0.05086
	24	31	233	0.00780	0.05866
	25	30	263	0.00755	0.06621
	26	2	<b>26</b> 5	0.00050	0.06672
	27	11	276	0.00277	0.06949
	28	0	276	0.00000	0.06949
	29	3	<i>2</i> 79	0.00076	0.07024
	30	0	27 9	0.00000	0.07024
	31	2	281	0.00050	0.07075
August	1	4	285	0.00101	0.07175
	2	1	286	0.00025	0.07200
	2	6	292	0.00151	0.07351
	4	0	292	0.00000	0.07351
	5	15	307	0.00378	0.07729
	6	70	377	0.01762	0.09491
	7	80	457	0.02014	0.11506
	8	7	464	0.00176	0.11682
	9	82	546	0.02064	0.13746
	10	4	550	0.00101	0.13847
	11	80	630	0.02014	0.15861

<sup>-</sup>Continued-

Appendix Table 24. Karta River weir counts of coho salmon, 1982¹ (continued).

		1	Numbers	Propor	tion
Da	ate	Daily	Cumulative	Daily	Cumulative
August	12	78	708	0.01964	0.17825
	13	61	769	0.01536	0.19361
	14	52	821	0.01309	0.20670
	15	138	959	0.03474	0.241.44
	16	53	1,012	0.01334	0.25478
	17	53	1,065	0.01334	0.26813
	18	83	1,148	0.02090	0.28902
	19	32	1,180	0.00806	0.29708
	20	47	1,227	0.01183	0.30891
	21	27	1,254	0.00680	0.31571
	22	5	1,259	0.00126	0.31697
	23	2	1,261	0.00050	0.31747
	24	18	1,279	0.00453	0.32200
	25	13	1,292	0.00327	0.32528
	26	4	1,296	0.00101	0.32628
	27	6	1,302	0.00151	0.32779
	28	2	1,304	0.00050	0.32830
	29	13	1,317	0.00327	0.33157
	30	14	1,331	0.00352	0.33510
	31	28	1,359	0.00705	0.34215
September	1	341	1,700	0.08585	0.42800
	2	297	1,997	0.07477	0.50277
	3	131	2,128	0.03298	0.53575
	4	165	2,293	0.04154	0.57729
	5 6	147	2,625	0.03701	0.61430
	6	185	2,625	0.04658	0.66088
	7	222	2,847	0.05589	0.71677
	8	0	2,847	0.00000	0.71677
	9	142	2,989	0.03575	0.75252
	10	154	3,143	0.03877	0.79129
	11	68	3,211	0.01712	0.80841
	12	132	3,343	0.03323	0.84164
	13	108	3 <b>,451</b>	0.02719	0.86883
	14	96	3,547	0.02417	0.89300
	15	79	3,626	0.01989	0.91289
	16	76	3,702	0.01913	0.93202
	17	53	3,755	0.01334	0.94537
	18	92	3,847	0.02316	0.96853
	19	66	3,913	0.01662	0.98515
	20	26	3,939	0.00655	0.99169
	21	29	3,968	0.00730	0.99899
	22	4	3,972	0.00101	1.00000

Numbers of coho salmon listed do not represent the entire escapement. Weir operation ceased before the run was complete.

Appendix Table 25. Klakas Inlet weir counts of coho salmon, 1982.

	1	Numbers	Propo	rtion
Date	Daily	Cumulative	Daily	Cumulative
August 3	1	1	0.00152	0.00152
4		1	0.00000	0.00152
5 6	15	16	0.02280	0.02432
6	10	26	0.01520	0.03951
7		33	0.01064	0.05015
8		48	0.02280	0.07295
9	38	86	0.05775	0.13070
10	2	88	0.00304	0.13374
11	13	101	0.01976	0.15350
12		103	0.00304	0.15653
13	1	104	0.00152	0.15805
14		110	0.00912	0.16717
15		118	0.01216	0.17933
16		121	0.00456	0.18389
17	0	121	0.00000	0.18389
18	2	123	0.00304	0.18693
19	3	126	0.00456	0.19149
20		127	0.00152	0.19301
21	ī	128	0.00152	0.19453
22		128	0.00000	0.19453
23		128	0.00000	0.19453
24		128	0.00000	0.19453
25		128	0.00000	0.19453
26	Ō	128	0.00000	0.19453
27	Ő	128	0.00000	0.19453
28		128	0.00000	0.19453
29		128	0.00000	0.19453
30		128	0.00000	0.19453
31		128	0.00000	0.19453
September 1	44	172	0.06687	0.26140
2	50	222	0.07599	0.33739
3	30	252	0.04559	0.38298
4		265	0.01976	0.40274
5	75	340	0.11398	0.51672
6		340	0.00000	0.51672
. 7	21	361	0.03191	0.54863
7	3 23	384	0.03495	0.58359
Š	21	405	0.03191	0.61550
10		405	0.00000	0.61550
ī		405	0.00000	0.61550
1:		448	0.06535	0.68085
1:		47.2	0.03647	0.71733
ī		472	0.00000	0.71733
ī.	-	472	0.00000	0.71733

<sup>-</sup>Continued-

Appendix Table 25. Klakas Inlet weir counts of coho salmon, 1982 (continued).

			Numbers	Prop	ortion
I	ate	Daily	Cumulative	Daily	Cumulative
September	16	0	472	0.00000	0.71733
	17	0	472	0.00000	0.71733
	18	0	472	0.00000	0.71733
	19	0	472	0.00000	0.71733
	20	0	47 2	0.00000	0.71733
	21	2	47 4	0.00304	0.72036
	22	0	47 4	0.00000	0.72036
	23	0	47 4	0.00000	0.72036
	24	0	47 4	0.00000	0.72036
	25	0	47 4	0.00000	0.72036
	26	12	486	0.01824	0.73860
	27	0	486	0.00000	0.73860
	28	0	486	0.00000	0.73860
	29	0	486	0.00000	0.73860
	30	0	486	0.00000	0.73860
October		31	517	0.04711	0.78571
	2	0	517	0.00000	0.78571
	1 2 3 4	20	537	0.03040	0.81611
	4	23	560	0.03495	0.85106
	5	0	560	0.00000	0.85106
	6	Ö	560	0.00000	0.85106
	7	10	570	0.01520	0.86626
	8	0	57 <b>0</b>	0.00000	0.86626
	9	ŏ	57 <b>0</b>	0.00000	0.86626
	10	65 <sup>1</sup>	635	0.09878	0.96505
	11	0	635	0.00000	0.96505
	12	0	635	0.00000	0.96505
	13	0	635	0.00000	
	14	0	635	0.00000	0.96505
	15	0	635		0.96505
	16	2	637	0.00000	0.96505
	17	0	637	0.00304	0.96809
	18	2		0.00000	0.96809
		0	639	0.00304	0.97112
	19		639	0.00000	0.97112
	20	0 2	639	0.00000	0.97112
	21	2	641	0.00304	0.97416
	22	0	641	0.00000	0.97416
	23	1	642	0.00152	0.97568
	24	3	645	0.00456	0.98024
	25	1 3 1 1	646	0.00152	0.98176
	26	1	647	0.00152	0.98328
	27	1	648	0.00152	0.98480
	28	1	649	0.00152	0.98632
	29	0	649	0.00000	0.98632
	30	0	649	0.00000	0.98632
	31	3	652	0.00456	0.99088

<sup>-</sup>Continued-

Appendix Table 25. Klakas Inlet weir counts of coho salmon, 1982 (continued).

		ı	Numbers	Propo	rtion
	Date	Daily	Cumulative	Daily	Cumulative
November	1 2	0	652 652	0.00000 0.00000	0.99088 0.99088
	3 4	0	652 652	0.00000 0.00000	0.99088
	5 6	3	655 656	0.00456 0.00152	0.99544
	7	0	656	0.00000	0.99696
	8 9	0	656 656	0.00000 0.00000	0.99696 0.99696
	10 11	0 1	656 657	0.00000 0.00152	0.99696 0.99848
	12 13	0	657 657	0.00000 0.00000	0.99848
	14 15	0 0 1	657 658 <sup>2</sup>	0.00000 0.00000 0.00152	0.99848 0.99848 1.00000

Number estimated by mark-recapture.

<sup>&</sup>lt;sup>2</sup> Includes 31 jacks.

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Appendix Table 26. Age composition of the Klakas Lake coho salmon escapement by period and sex, 19821.

				BROOD YE	R AND AGE CL	ASS	
		•	197	9	1978	1977	
Period	Sex	and	1.1	2.0	2.1	3.1	TOTAL
Aug 7-Oct 7 (n=341)	Males	COUNT PERCENT	306 48.80	0.00	40 6.38	2 0.32	348 55.50
	Females	COUNT PERCENT	225 35.89	4 0.64	50 7 <b>.</b> 97	0.00	279 44.50
	Sexes Combined	COUNT PERCENT	531 84 <b>.</b> 69	4 0.64	90 14 <b>.</b> 35	2 0.32	627 100.00

 $<sup>^{1}</sup>$  Additionally, 31 jack coho salmon returned to Klakas Lake but were not sampled for age or size data.

Appendix Table 27. Klawock River weir counts of coho salmon, 1982¹.

		I	vumbers	Propos	rtion
	Date	Daily	Cumulative	Daily	Cumulative
July	16	2	2 2	0.00060	0.00060
	17	0	2	0.00000	0.00060
	18	0	2 <b>2</b>	0.00000	0.00060
	19	0	2	0.00000	0.00060
	20	1	3	0.00030	0.00091
	21	2	5	0.00060	0.00151
	22	1	6	0.00030	0.00181
	23	0	6	0.00000	0.00181
	24	0	6	0.00000	0.00181
	25	0	6	0.00000	0.00181
	26	0	6	0.00000	0.00181
	27	0	6	0.00000	0.00181
	28	0	6	0.00000	0.00181
	29	1	7	0.00030	0.00212
	30		9	0.00060	0.00272
	31	2	11	0.00060	0.00332
August		2 2 5 3 1 2 1	16	0.00151	0.00484
_	1 2 3 4 5 6	3	19	0.00091	0.00574
	3	3	22	0.00091	0.00665
	4	1	23	0.00030	0.00695
	5	2	25	0.00060	0.00756
	6	1	26	0.00030	0.00786
	7	5	31	0.00151	0.00937
	8	1.1	42	0.00332	0.01269
	9		44	0.00060	0.01330
	10	2 5	49	0.00151	0.01481
	11	26	<b>7</b> 5	0.00786	0.02267
	. 12	0	<b>7</b> 5	0.00000	0.02267
	13	0	<b>7</b> 5	0.00000	0.02267
	14	4	79	0.00121	0.02387
	15	9	88	0.00272	0.02659
	16	25	113	0.00756	0.03415
	17	74	187	0.02236	0.05651
	18	16	203	0.00484	0.06135
	19	2	205	0.00060	0.06195
	20	0	205	0.00000	0.06195
	21	0	205	0.00000	0.06195
	22	0	205	0.00000	0.06195
	23	0	205	0.00000	0.06195
	24	12	217	0.00363	0.06558
	25	12	229	0.00363	0.06921
	26	0	229	0.00000	0.06921
	27	34	263	0.01028	0.07948
	28	82	345	0.02478	0.10426

<sup>-</sup>Continued-

Appendix Table 27. Klawock River weir counts of coho salmon, 1982 (continued).

		1	numbers	Propo	rtion
Da	ite	Daily	Cumulative	Daily	Cumulative
	29 30	3 13	348 361	0.00091 0.00393	0.10517 0.10910
	31	20	381	0.00604	0.11514
September	1	449	830	0.13569	0.25083
bepealber	2	161	991	0.04866	0.29949
	ร	173	1.164	0.05228	0.35177
	3 4 5 6	118	1.282	0.03566	0.38743
	5	157	1.693	0.04745	0.43487
	6	254	1.693	0.07676	0.51163
		130	1.823	0.03929	0.55092
•	7 8	172	1.995	0.05198	0.60290
	9	54	2.049	0.01632	0.61922
	10	36	2.085	0.01088	0.63010
	11	5 <b>1</b>	2.136	0.01541	0.64551
	12	334	2,470	0.10094	0.74645
	13	38	2,508	0.01148	0.75793
	14	Ō	2,508	0.00000	0.75793
	15	4	2,512	0.00121	0.75914
	16	6	2,518	0.00181	0.76095
	17	5	2,523	0.00151	0.76247
	18	16	2,539	0.00484	0.76730
	19	17	2.556	0.00514	0.77244
	20	5	2.561	0.00151	0.77395
	21	3	2,564	0.00091	0.77486
	22	5 3 5 2	2,569	0.00151	0.77637
	23	2	2.571	0.00060	0.77697
	24	0	2,571	0.00000	0.77697
	25	0	2,571	0.00000	0.77697
	26	0.	2,571	0.00000	0.77697
	27	0	2,571	0.00000	0.77697
	28	Ō	2,571	0.00000	0.77697
	29	0	2,571	0.00000	0.77697
	30	0	2.571	0.00000	0.77697
October	1	0	2.571	0.00000	0.77697
	2	16	2,587	0.00484	0.78181
	3 4	0	2,587	0.00000	0.78181
	4	57 41.2	2,644	0.01723	0.79903
	5 6	413	3.057	0.12481	0.92384
	7	108	3.165	0.03264	0.95648
	7 8	0	3.165	0.000	0.95648
	9	0 116	3,165	0.00000	0.95648
		116	3.281	0.03506	0.99154
	10 11	0 28	3.281 3.309	0.00000 0.008 <i>4</i> 6	0.99154 1.00000
		۷۵	3,303	0.00040	1.00000

Numbers listed do not represent the entire escapement. Weir operation ceased before the run was complete.

Appendix Table 28. Age composition of the Klawock River coho salmon escapement by period and sex, 1982¹.

		В	ROOD YEAR	AND AGE CLAS	S
		_	1979	1978	
Period	Sex	kangan dan dan dan dan dan dan dari ber	1.1	2.1	TOTAL
Nov 10 (n=97)	Males	Count Percent	0 31.00	0 11.30	0 42.30
	Females	Count Percent	0 37 <b>.</b> 10	0 20 <b>.</b> 60	0 57.70
	Sexes Combined	Count Percent	0 68.10	0 31.90	1 100.00

Weir counts were not apportioned by age class because sampling occurred on only one day and those samples may not be representative of the entire run.

Appendix Table 29. Chuck Lake weir counts of coho salmon, 1982.

		]	Numbers	Propor	tion
	Date	Daily	Cumulative	Daily	Cumulative
August	26	1	1	0.00097	0.00097
	27	0	1	0.00000	0.00097
	28	0	1	0.00000	0.00097
	29	. 0	1	0.00000	0.00097
	30	0	1	0.00000	0.00097
	31	0	1	0.00000	0.00097
September		Ō	ī	0.00000	0.00097
Береспред	2	4	5	0.00387	0.00484
	3	Ō	5	0.00000	0.00484
	4	3	8	0.00290	0.00774
	5	20	86	0.01936	0.02711
	6	58	86	0.05615	0.08325
	7	71	157	0.06873	0.15198
		71	2 <i>2</i> 7	0.06776	0.21975
	8			0.03872	0.25847
	9	40	267 247		0.33591
	10	80	347	0.07744	0.38819
	11	54	401	0.05227	
	12	30	431	0.02904	0.41723
	13	31	462	0.03001	0.44724
	14	12	47 4	0.01162	0.45886
	15	31	505	0.03001	0.48887
	16	16	521	0.01549	0.50436
	17	0	521	0.00000	0.50436
	18	0	521	0.00000	0.50436
	19	0	521	0.00000	0.50436
	20	4	<b>52</b> 5	0.00387	0.50823
	21	1	526	0.00097	0.50920
	22	1 5 3	5 <b>2</b> 7	0.00097	0.51016
	23	5	532	0.00484	0.51500
	24	3	535	0.00290	0.51791
	25	2	537	0.00194	0.51985
	26	0	537	0.00000	0.51985
	27	1	538	0.00097	0.52081
	28	3	5 <b>41</b>	0.00290	0.52372
	29	0	541	0.00000	0.52372
	30	26	567	0.02517	0.54889
October		115	682	0.11133	0.66021
3 3	1 2 3 4 5 6	32	714	0.03098	0.69119
	3	35	749	0.03388	0.72507
	4	28	777	0.02711	0.75218
	5	15	792	0.01452	0.76670
	š	74	866	0.07164	0.83833
	7	17	883	0.01646	0.85479
	8	3	886	0.00290	0.85770

-Continued-

Appendix Table 29. Chuck Lake weir counts of coho salmon, 1982 (continued).

		1	vumbers	Propor	tion
	Date	Daily	Cumulative	Daily	Cumulative
October	9	53	939	0.05131	0.90900
	10	21	960	0.02033	0.92933
	11	6	966	0.00581	0.93514
	12	5	971	0.00484	0.93998
	13	18	989	0.01742	0.95741
	14	4	993	0.00387	0.96128
	15		996	0.00290	0.96418
	16	3 5	1.001	0.00484	0.96902
	17	0	1.001	0.00000	0.96902
	18	1	1.002	0.00097	0.96999
	19	1 3 1	1.005	0.00290	0.97289
	20	1	1.006	0.00097	0.97386
	21	0	1.006	0.00000	0.97386
	22	0 2 3	1.008	0.00194	0.97580
	23		1.011	0.00290	0.97870
	24	0	1.011	0.00000	0.97870
	25	1	1.012	0.00097	0.97967
	26	4	1,016	0.00387	0.98354
	27	0	1.016	0.00000	0.98354
	28	4	1.020	0.00387	0.98742
	29	2	1.022	0.00194	0.98935
	30	6 2	1.028	0.00581	0.99516
	31	2	1.030	0.00194	0.99710
November	1	2	1.032	0.00194	0.99903
		0	1.032	0.00000	0.99903
	2 3	0	1.032	0.00000	0.99903
	4	1	1.0331	0.00097	1.00000

<sup>&</sup>lt;sup>1</sup> Includes 16 jacks.

Appendix Table 30. Age composition of the Chuck Lake coho salmon escapement by period and sex, 19821.

			BROOD YEAR AND AGE CLASS					
Period		_	1980	1979		1978	1977	
	Sex	gger ger a jarga, daga apigalan diplois (grass Class (glass) (glass) (glass)	1.0	1.1	2.0	2.1	3.1	LATOT
Sept 2-Nov 4 (n=376)	Males	Count Percent	3 0.29	273 26.84	3 0.29	51 5.01	0.00	330 32.45
	Females	Count Percent	0.00	544 53 - 49	0.00	135 13.27	8 0 <b>.</b> 79	687 67.55
	Sexes Combined	Count Percent	3 0.29	817 80.33	3 0.29	186 18.29	8 0.79	1.017

Additionally, 16 jacks (zero-ocean coho salmon) were counted at the weir but were not sampled for age or size data.

Appendix Table 31. Sarkar River weir counts of coho salmon, 19821.

		1	Numbers	Propo	rtion
	Date	Daily	Cumulative	Daily	Cumulative
July	16 17-23 <sup>2</sup>	2	2	0.00040	0.00040
August	17-23 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	102 134 0 551 1.000 189 501 0 270 40 621 501 79 381 73 15	104 238 238 789 1.789 1.978 2.479 2.479 2.749 2.789 3.410 3.911 3.990 4.371 4.444 4.459	0.02050 0.02693 0.00000 0.11073 0.20096 0.03798 0.10068 0.00000 0.05426 0.00804 0.12480 0.12480 0.10068 0.01588 0.07657 0.01467 0.00301	0.02090 0.04783 0.04783 0.15856 0.35953 0.39751 0.49819 0.55245 0.56049 0.68529 0.78597 0.80185 0.87842 0.89309 0.89610
	18 19 20 21 22	0 1 <i>2</i> 6 152 230	4,459 4,585 4,737 4,967 4,976	0.00000 0.02532 0.03055 0.04622 0.00181	0.89610 0.92142 0.95197 0.99819 1.00000

 $<sup>^{\</sup>rm 1}$  Numbers listed do not represent the entire escapement. Weir operation ceased before the run was complete.

<sup>&</sup>lt;sup>2</sup> The weir was washed out during this time period.

Appendix Table 32. Summary of coho salmon removal from adult holding pond, Crystal Lake Hatchery, 1982.

		I	Numbers	Proport	cion	
Date		Daily	Cumulative	Daily	Cumulative	
August	30	13	13	0.00113	0.00113	
September	1	9	22	0.00078	0.00191	
1	3	41.4	436	0.03601	0.03792	
	8	29	<b>46</b> 5	0.00252	0.04044	
October	1	538	1,003	0.04680	0.08724	
	8	653	1,656	0.05680	0.14404	
	11	741	2,397	0.06446	0.20850	
	12	814	3,211	0.07081	0.27931	
	13	4,444	7,655	0.38660	0.66591	
November	1	421	8,076	0.03662	0.70253	
	2	479	8,555	0.04167	0.74420	
	3	495	9,050	0.04306	0.78726	
	8	689	9,739	0.05994	0.84720	
	101	1,756	11,495 <sup>2</sup>	0.15276	1.00000	

 $<sup>^{\</sup>rm 1}$  The ladder to the adult holding pond was closed on this date with an estimated 142 adult coho salmon remaining in Crystal Creek.

<sup>&</sup>lt;sup>2</sup> Includes 680 jacks.

Appendix Table 33. Age composition of the Crystal Lake coho salmon escapement by period and sex,  $1982^{1}$ .

			BROOD Y				
		-	1980	1979	1978		
Period	Sex		1.0	1.1	2.1	TOTAL	
Sept 3-Nov 1 (n=412)	Males Count Percer	Count Percent	26 0.24	7.009 64.81	26 0.24	7.061 65.29	
	Females	Count Percent	26 0.24	3.675 33.98	53 0.49	3.754 34.71	
	Sexes Combined	Count Percent	52 0.48	10.684 98.79	79 0 <b>.</b> 73	10,815 100.00	

 $<sup>^{\</sup>rm 1}$  Additionally, 680 jacks were counted at the weir but were not sampled for age or size data.

Appendix Table 34. Falls Lake weir counts of coho salmon, 1982.

		1	Numbers	Propor	tion
	Date	Daily	Cumulative	Daily	Cumulative
August	4	1	1	0.00658	0.00658
_	5	2	1 3	0.01316	0.01974
	6	3	6	0.01974	0.03948
	7	1 2 3 2	8	0.01316	0.05264
	8	0	8	0.00000	0.05264
	9	0	8	0.00000	0.05264
	10	0	8	0.00000	0.05264
	11	0	8	0.00000	0.05264
	12	0	8	0.00000	0.05264
	13	0	8	0.00000	0.05264
	14	0	8	0.00000	0.05264
	15	0	8	0.00000	0.05264
	16	0	8	0.00000	0.05264
	17	0	8 8	0.00000	0.05264
	18	0	8	0.00000	0.05264
	19	4	12	0.02632	0.07896
	20	12	24	0.07895	0.15791
	21	13	37	0.08552	0.24343
	22	28	65	0.18421	0.42764
	23	10	75	0.06579	0.49343
	24	1	76	0.00658	0.50001
	25	4	80	0.02632	0.52633
	26	3	83	0.01974	0.54607
	27	0	83	0.00000	0.54607
	28	0	83	0.00000	0.54607
	29	3	86	0.01974	0.56581
	30	0	86	0.00000	0.56581
	31	0 2	88	0.01316	<b>0.</b> 578 <b>97</b>
Septemb	er 1-17	64	152	0.42105	1.00002

Appendix Table 35. Age composition of the Falls Lake coho salmon escapement by period and sex, 1982.

gelle Simblemb, gezurdens dem Simblemberr bereit Strietigen dem dem Signe Signe			BROOD Y				
		-	1979	1978	1977		
Period	Sex		1.1	2.1	3.1	TOTAL	
July 22-Aug 27 (n=85)	Males	Count Percent	33 21.20	48 31.70	7 4.70	88 57 -60	
	Females	Count Percent	23 15.30	41 27 - 10	0 0.00	64 42.40	
	Sexes Combined	Count Percent	56 36.50	89 58 <b>.</b> 80	7 4.70	152 100.00	

Appendix Table 36. Speel Lake weir counts of coho salmon, 1982.

	I	Numbers	Propo	rtion
Date	Daily	Cumulative	Daily	Cumulative
September 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 October 1 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 20 21 21 22 22 23 24 25 26 27 28 29 30 20 21 21 22 22 23 24 25 26 27 28 29 30 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 21 20 20 21 20 20 21 20 20 20 20 20 20 20 20 20 20 20 20 20	1 0 0 0 0 0 0 0 0 0 0 0 25 29 3 4 2 2 8 10 5 5 8 13 100 51 5 5 32 52 66 68 74 20 47 38 8 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1 1 1 1 1 1 1 1 1 26 55 58 62 64 66 74 84 89 94 102 115 215 266 271 303 355 421 489 563 583 630 668 676 686 686 674 889 898 898 898 898 898 898 898 898 89	0.00082 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.02048 0.02375 0.00246 0.00328 0.00164 0.00655 0.00819 0.00410 0.00655 0.01065 0.08190 0.04177 0.00410 0.02621 0.04259 0.05405 0.05569 0.06061 0.01638 0.03849 0.03112 0.0655 0.00655 0.00655 0.00655 0.00655 0.00655 0.01638 0.03849 0.03112 0.0655 0.00655 0.00819 0.00000 0.02703 0.02457 0.06716 0.02703 0.0248 0.00737 0.02703 0.02703 0.02703	0.00082 0.00082 0.00082 0.00082 0.00082 0.00082 0.00082 0.00082 0.002129 0.04505 0.05242 0.05405 0.05242 0.05405 0.06061 0.06880 0.07289 0.07699 0.08354 0.09419 0.17609 0.21785 0.22195 0.24816 0.29075 0.34480 0.40049 0.46110 0.47748 0.51597 0.54709 0.55364 0.56183 0.56183 0.68059 0.70762 0.72809 0.73546 0.76249 0.77232

<sup>-</sup>Continued-

Appendix Table 36. Speel Lake weir counts of coho salmon, 1982 (continued).

		1	Numbers	Propor	tion
	Date	Daily	Cumulative	Daily	Cumulative
October	22 23 24 25 26 27 28 29 30 31 1 2 3 4	20 9 3 6 18 31 25 12 36 37 10 9 16 8 15	963 972 975 981 999 1.030 1.055 1.067 1.103 1.140 1.150 1.159 1.175 1.183 1.198 1.212	0.01638 0.00737 0.00246 0.00491 0.01474 0.02539 0.02048 0.00983 0.02948 0.03030 0.00819 0.00737 0.01310 0.00655 0.01229 0.01147	0.78870 0.79607 0.79853 0.80344 0.81818 0.84357 0.86405 0.87387 0.90336 0.93366 0.94185 0.94922 0.96233 0.96888 0.98116 0.99263
	7 8 9 10	4 0 1 4	1.216 1.216 1.217 1.2211	0.00328 0.00000 0.00082 0.00328	0.99590 0.99590 0.99672 1.00000

<sup>&</sup>lt;sup>1</sup> Includes 38 jacks.

Appendix Table 37. Age composition of the Speel Lake coho salmon escapement by period and sex, 1982¹.

			BROOD YEAR AND AGE CLASS					
		-	1979		1978		1977	
Period	Sex		1.1	2.0	2.1	3.0	3.1	TOTAL
Sept 18-Nov 15 (n=393)	Males	Count Percent	277 23 <b>.4</b> 2	3 0.25	316 26-71	3 0.25	6 .51	605 51.14
	Females	Count Percent	169 14.29	0.00	394 33.31	0 0.00	15 1. <i>2</i> 7	578 48.86
	Sexes Combined	Count Percent	446 37-70	3 0.25	710 60.02	3 0 <b>.</b> 25	21 1.78	1.183 100.00

 $<sup>^{1}</sup>$  Additionally, 38 jacks were counted at the weir but were not sampled for age or size data.

Appendix Table 38. Age composition of the Snettisham Hatchery coho salmon escapement by period and sex,  $1982^1$ .

<u> para jang kanggan dan dan gang mengamban dan dan dan dan dan dan dan dan dan d</u>			BROOD YEAR AND AGE CLASS				
			1980	1979		1978	
Period	Sex		1.0	1.1	2.0	2.1	LATOT
Nov 8-Dec 1 (n=136)	Males	Count Percent	0 0.70	0 39.80	0 0.70	0 10.30	0 51.50
(1. 2-1)	Females	Count Percent	0.00	0 37 <sub>-</sub> 50	0.00	0 11.00	0 48 <b>.</b> 50
	Sexes Combined	Count Percent	0 0.70	0 77.30	0 0.70	0 21.30	100.00

<sup>&</sup>lt;sup>1</sup> The total escapement of Snettisham Hatchery coho is unknown.

Appendix Table 39. Auke Lake weir counts of coho salmon, 1982.

		1	Numbers	Propo	rtion
D	ate	Daily	Cumulative	Daily	Cumulative
August	27	2	2	0.00255	0.00255
September	11	1	3	0.00127	0.00382
	12	6	9	0.00764	0.01146
	13	1	10	0.00127	0.01274
	14	5	15	0.00637	0.01911
	15	19	34	0.02420	0.04331
	16	10	44	0.01274	0.05605
	17	9	53	0.01146	0.06752
	18	4	57	0.00510	0.07261
	19	21	78	0.02675	0.09936
	20	5	83	0.00637	0.10573
	21	16	99	0.02038	0.12611
	22	13	112	0.01656	0.14268
	23	6	118	0.00764	0.15032
	24	76	194	0.09682	0.24713
	25	94	288	0.11975	0.36688
	26	0	288	0.00000	0.36688
	27	51	339	0.06497	0.43185
	28	21	360	0.02675	0.45860
	29	31	391	0.03949	0.49809
	30	51	442	0.06497	0.56306
October	1	75	517	0.09554	0.65860
	2	103	620	0.13121	0.78981
	3	0	620	0.00000	0.78981
	4	59	679	0.07516	0.86497
	5	24	703	0.03057	0.89554
	5	15	718	0.01911	0.91465
	7	14	732	0.01783	0.93248
	8	4	736	0.00510	0.93758
	9	18	754	u.U2293	0.96051
	10	3	757	0.00382	0.96433
	11	Ō	757	0.00000	0.96433
	12	0	757	0.00000	0.96433
	13	23	780	0.02930	0.99363
	14	2	782	0.00255	0.99618
	15	2	784	0.00255	0.99873
	16	1	785 <sup>1</sup>	0.00127	1.00000

<sup>&</sup>lt;sup>1</sup> Includes 338 jacks.

Appendix Table 40. Age composition of the Auke Lake coho salmon escapement by period and sex,  $1982^1$ .

Phile Management days that the controlling group groups are group and produce	n dispullmentlern Gled directlery firet derry dans gener gener gener	<u> </u>	BROOD Y			
		•	1979	1978	1977	an ann faing gear Amar Charlegean team ann a Car a Gear Am-
Period	Sex	Steam	1.1	2.1	3.1	TOTAL
Sept 30-Oct 18 (n=160)	Males	Count Percent	87 19.46	98 21.92	22 4.92	207 46 - 31
	Females	Count Percent	87 19.46	133 29 <b>.</b> 75	20 4.47	240 53.69
	Sexes Combined	Count Percent	174 38.93	231 51-68	42 9.40	447 100.00

 $<sup>^{\</sup>rm 1}$  Additionally, 338 jacks were counted at the weir but were not sampled for age or size data.

Appendix Table 41. Politofski Lake weir counts of coho salmon, 1982.

		I	vumbers	 Propo	ortion
I	Date	Daily	Cumulative	 Daily	Cumulative
August	26	4	4	0.00234	0.00234
	27	67	71	0.03920	0.04154
	28	2	73	0.00117	0.04272
	29	0	73	0.00000	0.04272
	30 31	1 0	74 74	0.00059 0.00000	0.04330 0.04330
September	1	0	74 74	0.00000	0.04330
pehremet	2	27	101	0.00000	0.05910
	3	7	101	0.01380	0.06319
	4	í	109	0.00059	0.06378
		i	129	0.00059	0.06437
•	5 6 7	19	129	0.01112	0.07548
	7	18	147	0.01053	0.08602
	8	4	151	0.00234	0.08836
	9	Ō	151	0.00000	0.08836
	10	Ö	151	0.00000	0.08836
	11	Õ	151	0.00000	0.08836
	12	ĺ	152	0.00059	0.08894
	13	0	152	0.00000	0.08894
	14	20	172	0.01170	0.10064
	15	8	180	0.00468	0.10532
	16	ĺ	181	0.00059	0.10591
	17	1	182	0.00059	0.10650
	18	0	182	0.00000	0.10650
	19	0	182	0.00000	0.10650
	20	0	182	0.00000	0.10650
	21	0	182	0.00000	0.10650
	22	0	182	0.00000	0.10650
	23	0	182	0.00000	0.10650
	24	0	182	0.00000	0.10650
	25	0	182	0.00000	0.10650
	26	0	182	0.00000	0.10650
	27	0	182	0.00000	0.10650
	28	0	182	0.00000	0.10650
	29	0	182	0.00000	0.10650
	30	120	302	0.07022	0.17671
October	1	41	343	0.02399	0.20070
	1 2 3 4 5 6 7	3 5 0	346	0.00176	0.20246
	3	5	351	0.00293	0.20538
	4		351	0.00000	0.20538
	5	11	362	0.00644	0.21182
	6	26	388	0.01521	0.22703
		1	389	0.00059	0.22762
	8	0	389	0.00000	0.22762

<sup>-</sup>Continued-

Appendix Table 41. Politofski Lake weir counts of coho salmon, 1982 (continued).

	<del></del>	 1	numbers	 Prop	ortion
-	Date	Daily	Cumulative	Daily	Cumulative
October	9	0	389	 0.00000	0.22762
	10	0	389	0.00000	0.22762
	11	0	389	0.00000	0.22762
	12	7191	1.108	0.42071	0.64833
	13	527 1	1.635	0.30837	0.95670
	14	0	1.635	0.00000	0.95670
	15	0	1,635	0.00000	0.95670
	16	0	1.635	0.00000	0.95670
	17	0	1.635	0.00000	0.95670
	18	0	1.635	0.00000	0.95670
	19	0	1.635	0.00000	0.95670
	20	0	1.635	0.00000	0.95670
	21	0	1,635	0.00000	0.95670
	22 23	0	1.635	0.00000	0.95670
	23 24	1	1.636	0.00059	0.95728
	25	1	1.637	0.00059	0.95787
	25 26	4	1.641	0.00234	0.96021
	26 27	0	1.641	0.00000	0.96021
	27 28		1.641	0.00000 0.00000	0.96021
	28 29	0 0	1.641 1.641	0.00000	0.96021 0.96021
	30		1.642		
	31	0	1.642	0.00059	0.96080
November		0		0.00000	0.96080
November	J.	0	1.642 1.642	0.00000	0.96080 0.96080
	2	2	1.644	0.000117	0.96197
	1 2 3 4 5 6 7	0	1.644	0.00000	0.96197
	<del>-</del> π	0	1.644	0.00000	0.96197
	6	0	1.644	0.00000	0.96197
	7	0	1.644	0.00000	0.96197
	8	Ö	1.644	0.00000	0.96197
	9	Ö	1.644	0.00000	0.96197
	10	2	1.646	0.00017	0.96314
	îi	Õ	1.646	0.00000	0.96314
	12	Ŏ	1.646	0.00000	0.96314
	13	Ō	1.646	0.00000	0.96314
	14	 63	1.709	0.03686	1.00000

<sup>&</sup>lt;sup>1</sup> Escapement estimated by mark-recapture.

Appendix Table 42. Age composition of the Politofski Lake coho salmon escapement by period and sex, 1982.

Anny Saya Sana Sana Sana Sana Sana Sana S	and the second seco	yan gana gana gana gana gana bayan gana bayan gana da	BROOD Y	<u></u>		
			1979	1978	1977	
Period	Sex		1.1	2.1	3.1	TOTAL
Aug 26-Oct 29 (n=149)	Male	Count Percent	402 23.52	401 23 - 46	23 1.35	826 48.33
	Female	Count Percent	447 26 <sub>s</sub> 16	413 24.17	23 1.35	883 51.67
	Sexes Combined	Count Percent	849 49 <b>.</b> 68	81 4 47 <b>.</b> 63	46 2.69	1.709 100.00

Appendix Table 43. Redoubt Lake weir counts of coho salmon, 1982¹.

***************************************		]	viumbers	Pro	portion
	Date	Daily	Cumulative	Daily	Cumulative
July	16	1	1	0.00588	0.00588
	17	0	1	0.00000	0.00588
	18	2	3	0.01176	0.01765
	19	0	3	0.00000	0.01765
	20	1	4	0.00588	0.02353
	21	4	8	0.02353	0.04706
	22	3	11	0.01765	0.06471
	23	2	13	0.01176	0.07647
	24	0	13	0.00000	0.07647
	25	0	13	0.00000	0.07647
	26	1 2	14	0.00588	0.08235
	27	2	16	0.01176	0.09412
	28	8	24	0.04706	0.14118
	29	13	37	0.07647	0.21765
	30	9	46	0.05294	0.27059
	31	0	46	0.00000	0.27059
August	1	0	46	0.00000	0.27059
	2 3 4	2	48	0.01176	0.28235
	3	0	48	0.00000	0.28235
	4	0	48	0.00000	0.28235
	5 6	2	50	0.01176	0.29412
	6	2 2 8	52	0.01176	0.30588
	7	8	60	0.04706	0.35294
	8	3	63	0.01765	0.37059
	9	4	67	0.02353	0.39412
	10	15	82	0.08824	0.48235
	11	15	97	0.08824	0.57059
	12	21	118	0.12353	0.69412
	13	12	130	0.07059	0.76471
	14	4	134	0.02353	0.78824
	15	21	155	0.12353	0.91176
	16	2	157	0.01176	0.92353
	17	5	162	0.02941	0.95294
	18	4	166	0.02353	0.97647
	19	0	166	0.00000	0.97647
	20	0	166	0.00000	0.97647 0.98824
	21 22	2 2	168 170	0.01176 0.01176	1.00000
			110	0.011/0	1.00000

Numbers listed do not represent the entire escapement. Weir operation ceased before the coho salmon run was complete.

			BROOD YEAR AND AGE CLASS				
		_	1979	1978	1977	1976	
Period	Sex		1.1	2.1	3.1	4.1	TOTAL
July 29—Aug 21 (n≃66)	Males	Count Percent	61 36.40	63 37.90	0.00	3 1.50	1 <i>2</i> 7 75.80
	Females	Count Percent	15 9 <b>.</b> 10	23 13.60	3 1.50	0.00	4 <u>1</u> 24.20
	Sexes Combined	Count Percent	76 45.50	86 51 - 50	3 1.50	3 1.50	168 100.00

<sup>&</sup>lt;sup>1</sup> Counts apportioned in this table reflect a partial escapement count.

Appendix Table 45. Ford Arm Lake weir counts of coho salmon, 1982.

		ì	Numbers	Propo	rtion
]	Date	Daily	Cumulative	Daily	Cumulative
August	23	10	10	0.00371	0.00371
	24	66	76	0.02448	0.02819
	25	33	109	0.01224	0.04043
	26	37	146	0.01372	0.05415
	27	38	184	0.01409	0.06825
	28	16	200	0.00593	0.07418
	29	8	208	0.00297	0.07715
	30	31	239	0.01150	0.08865
	31	1	240	0.00037	0.08902
September	1	58	298	0.02151	0.11053
	2	57	355	0.02114	0.13168
	3 4	51	406	0.01892	0.15059
	4	20	426	0.00742	0.15801
	5	0	450	0.00000	0.15801
	6	24	450	0.00890	0.16691
	7	114	56 4	0.04228	0.20920
	8	70	634	0.02596	0.23516
	9	18	652	0.00668	0.24184
	10	0	652	0.00000	0.24184
	1.1	2	654	0.00074	0.24258
	12	0	654	0.00000	0.24258
	13	0	654	0.00000	0.24258
	14	47	701	0.01743	0.26001
	15	5	706	0.00185	0.26187
	16	4	710	0.00148	0.26335
	17	1	711	0.00037	0.26372
	18	0	711	0.00000	0.26372
	19	2	713	0.00074	0.26447
	20	1	714	0.00037	0.26484
	21	0	714	0.00000	0.26484
	22	0	714	0.00000	0.26484
	23	24	738	0.00890	0.27374
	24	13	751	0.00482	0.27856
	25	0	751	0.00000	0.27856
	26	0	751	0.00000	0.27856
	27	0	751	0.00000	0.27856
	28	0	751	0.00000	0.27856
	29	0	751	0.00000	0.27856
	30	40	791	0.01484	0.29340
October		88	879	0.03264	0.32604
	2	0	879	0.00000	0.32604
	1 2 3 4	32	911	0.01187	0.33791
	4	0	911	0.00000	0.33791
	5	Ō	911	0.00000	0.33791

<sup>-</sup>Continued-

Appendix Table 45. Ford Arm Lake weir counts of coho salmon, 1982 (continued).

		ì	vumbers	Propos	rtion
	Date	Daily	Cumulative	Daily	Cumulative
October	6	0	911	0.00000	0.33791
	7	0	911	0.00000	0.33791
	8	0	911	0.00000	0.33791
	9	161	1.072	0.05972	0.39763
	10	109	1.181	0.04043	0.43806
	11	186	1.367	0.06899	0.50705
	12	372	1 <b>.7</b> 39	0.13798	0.64503
	13	55	1.794	0.02040	0.66543
	14	7	1.801	0.00260	0.66803
	15	0	1.801	0.00000	0.66803
	16	0	1,801	0.00000	0.66803
	17	0	1.801	0.00000	0.66803
	18	26	1.827	0.00964	0.67767
	19	0	1.827	0.00000	0.67767
	20	0	1.827	0.00000	0.67767
	21	. 0	1.827	0.00000	0.67767
	22	0	1.827	0.00000	0.67767
	23	. 0	1.827	0.00000	0.67767
	24	0	1.827	0.00000	0.67767
	25	2	1.829	0.00074	0.67841
	26	0	1.829	0.00000	0.67841
	27	0	1.829	0.00000	0.67841
	28	0	1.829	0.00000	0.67841
	29	97	1.926	0.03598	0.71439
	30	164	2,090	0.06083	0.77522
	31	1	2,091	0.00037	0.77559
November	1	0	2,091	0.00000	0.77559
	2	105	2,196	0.03895	0.81454
	3	21	2.217	0.00779	0.82233
	4	2	2.219	0.00074	0.82307
	5	0	2.219	0.00000	0.82307
	6	0	2,219	0.00000	0.82307
	7	0	2,219	0.00000	0.82307
	8	0	2,219	0.00000	0.82307
	9	113	2,332	0.04191	0.86499
	10	3	2,335	0.00111	0.86610
	11	0	2,335	0.00000	0.86610
	12	Ö	2,335	0.00000	0.86610
	13	ő	2,335	0.00000	0.86610
	14	10	2.345	0.00371	0.86981
	15	0	2,345	0.00000	0.86981
	16	351	2,696 <sup>1</sup>	0.13019	1.00000
		231	4.030	0.13017	1.00000

<sup>&</sup>lt;sup>1</sup> Includes 34 jacks.

Appendix Table 46. Age composition of the Ford Arm Lake coho salmon escapement by period and sex, 1982.

der de servicio de la Constantina della Constant	ستة منظ سني جيور دهي بريوسيغ سين سني بجي وجي منت خسياسين سر		BROOD YEAR AND AGE CLASS					
		<del></del>	197	9	1978	1977		
Period	Sex		1.1	2.0	2.1	3.1	TOTAL	
Aug 24-Oct 10 (n=365)	Male	Count Percent	452 16.98	7 0.26	839 31.52	15 0.56	1.313 49.32	
(11–303)	Female	Count Percent	394 14.80	0.00	933 35 <b>.</b> 05	22 0.83	1.349 50.68	
	Sexes Combined	Count Percent	846 31.78	7 0.26	1.772 66.57	37 1.39	2.662 100.00	

Appendix Table 47. Age composition of the Berners River coho salmon escapement by period and sex, 1982.

			BROOD YEAR AND AGE CLASS					
		-	1980	1979	1978	1977		
Period	Sex	err baga djangtion derriban dans Ban derriban de	1.0	1.1	2.1	3.1	TOTAL	
Nov 1-Nov 5 (n=336)	Males	Count Percent	22 0.29	2.860 38.11	1.787 23.81	22 0.29	4,691 62.50	
	Females	Count Percent	0.00	1.653 22.03	1.139 15.18	22 0 <b>.</b> 29	2,814 37.50	
	Sexes Combined	Count Percent	22 0.29	4.513 60.13	2.926 38.99	44 0.59	7.505 100.00	

Appendix Table 48. Chilkat River weir counts of coho salmon, 1982<sup>1</sup>.

		ì	Numbers .	Proport	ion
Date		Daily	Cumulative	Daily	Cumulative
September	21	1	1	0.00637	0.00637
	22	1	2	0.00637	0.01274
	23	14	16	0.08917	0.10191
	24	34	50	0.21656	0.31847
	25	11	61	0.07006	0.38853
	26	23	84	0.14650	0.53503
	27	0	84	0.00000	0.53503
	28	0	84	0.00000	0.53503
	29	70	154	0.44586	0.98089
	30	0	154	0.00000	0.98089
October	1	0	154	0.00000	0.98089
	2	1	155	0.00637	0.98726
	3	2	157	0.01274	1.00000

Numbers listed do not represent the entire coho salmon escapement. Weir operations ceased before the run was complete.

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